1989 UTAH AGRICULTURAL STATISTICS

UTAH DEPARTMENT OF AGRICULTURE ANNUAL REPORT

ENTERPRISE BUDGET

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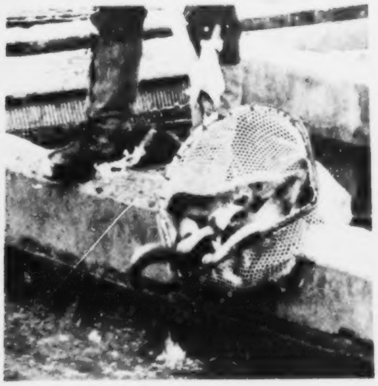
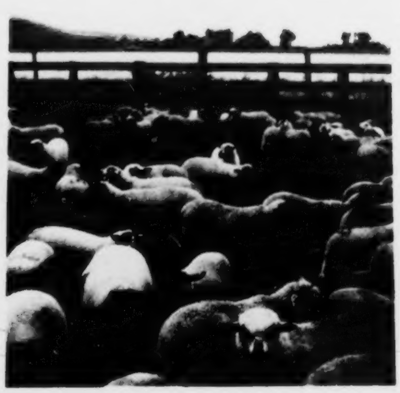
UTAH WORKS

Utah Products





1896

STATE OF UTAH
OFFICE OF THE GOVERNOR
SALT LAKE CITY
84114

NORMAN H. BANGERTER
GOVERNOR

Dear Fellow Utahns:

Another year of progress has taken place in our state's great agricultural industry. I'm very pleased to have a hand in bringing you this report of the activities of our Utah Department of Agriculture for the 1988-89 fiscal year.

Especially gratifying is the cooperation between state government and private industry, as well as with federal government agencies, in working out the needs of Utah farmers and ranchers. This team approach to solving our problems has a strength that can't be found in a single-unit attack.

Agricultural research is a prime example of this cooperation. Research projects funded by private money combined with tax funds have paved the way for improved crop varieties and livestock breeds, better pest control, and more food safety, among other goals. We also enjoy fine teamwork in improved irrigation techniques, natural resource conservation, the "Utah Works" program, Agriculture in the Classroom, and many more.

The enterprise budget section in the back of this report catches my eye. I hope our state's food producers will use this section to check the financial effectiveness of their own operations and to bring about improvements and a better family life.

In closing, let me express my personal gratitude for the diligence and patience of our state's 13,600 farm families who work to produce food for the rest of us, and to pay tribute to them for their productivity and perseverence.

Sincerely,

Norman H Bangerter

Norman H. Bangerter
Governor

INTRODUCTION

Providing agricultural statistics and promoting the industry in Utah have long been the goals of the Utah Agricultural Statistics Service and the Utah Department of Agriculture. A strong cooperative effort between the two organizations continues to make this publication possible.

Farmers, ranchers, and agribusinesses in Utah continue to support these estimates by voluntarily sharing information about their individual operation. They are some of the best reporters in the Nation. The data provided are essential to quality estimates. A special thanks goes to them.

The Utah Department of Agriculture Annual Report helps keep you informed about the responsibilities of the department and what is going on. The agricultural statistics provide acreage, production, inventory, and price estimates of Utah's agriculture. Similar agricultural information about production in other States and the Nation can also be obtained from this office. The weather data show how last year was and how it compares with normal. Budget enterprises can be used for making decisions about what crops and livestock to include in your operation, or how your costs compare with others.

This is the nineteenth annual edition of the publication. Betty Owens has played a major role in compiling, typing, and editing since the first edition in 1971. She is retiring and this will be her last publication. A big "thank you" to her for her dedication and commitment to quality in preparing this publication for the past 19 years. We wish her the best in retirement.

James G. Christensen

JAMES G. CHRISTENSEN, Director
Agriculture Development and Conservation
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DelRoy J. Gneiting

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UTAH AGRICULTURAL STATISTICS 1989

This report has been compiled and published as a cooperative effort and function of the following agencies of Federal and State Government.

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We would like to thank Ron Daines, USU Extension Service, Kurt Gutknecht, and Gary Neuenswander, USU Experiment Station for helping to provide the photographs used in this publication.

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UTAH DEPARTMENT OF AGRICULTURE
1989 ANNUAL REPORT

UTAH DEPARTMENT OF AGRICULTURE

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Data Processing Services	538-7113
Personnel	538-7112
Market News	538-7127
Agricultural Development & Conservation	
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Ag Resource Development Loans	538-7176
Environmental Quality	538-7172
Soil Conservation	538-7171
Agricultural Statistics	524-5003
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Animal Health	538-7162
Serology Laboratory	538-7165
Animal Identification (Brands)	538-7166
Meat Inspection	538-7117
Chemistry Laboratory	
Director	538-7128
Pesticide Residue Lab	538-7135
Bacteriology Lab	538-7129
Feed & Fertilizer Lab	538-7134
Meat Lab	538-7132
Food & Dairy	
Supervisor	538-7150
Bedding, Quilted Clothing, Upholstered Furniture	538-7151
Egg & Poultry	538-7148
Investigation	538-7141
Livestock & Market News	538-7127
Marketing & Promotion	538-7108
Plant Industry	
Director	538-7180
Entomology	538-7184
Fresh Fruit & Vegetable Inspection	538-7183
Insect Infestation Emergency Control	538-7180
Grain, Seed & Feed Inspection	538-7187
Grain Grading Lab (Ogden UT)	392-0603
Pesticides/Fertilizers	538-7188
Seed Laboratory	538-7182
Noxious Weeds	538-7183
Weights and Measures	538-7158

State of Utah
DEPARTMENT OF AGRICULTURE
GOVERNOR'S CABINET

Norman H. Bangerter
Governor
Miles Cap Ferry
Commissioner

350 North Redwood Road
Salt Lake City, Utah 84116
(801) 538-7100

Dear Friends of Utah Agriculture:

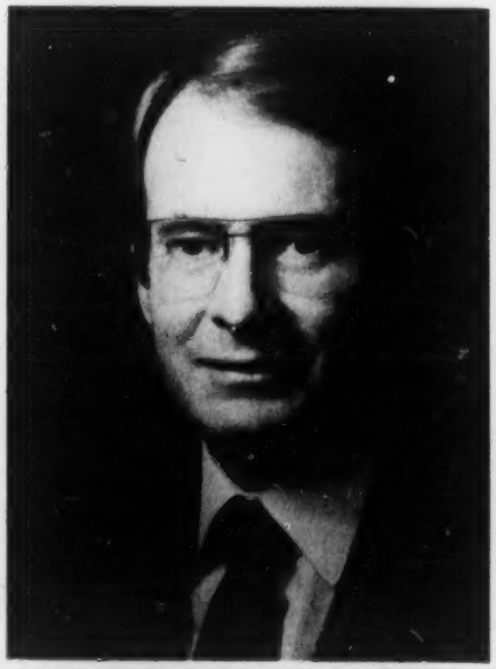
The term "feast or famine," which refers to our food supply, certainly applies to the farmers and ranchers who produce that food -- they have a "feast or famine" existence -- sometimes both in the same growing season. Across the nation, 1988 was a year of drought and crop disaster. But here in Utah, those farmers and ranchers who had enough water to get through the summer came out well, because prices were strong due to a shortage of production nationwide.

Net farm income was favorable again, in our state, following a good year in 1987. We're both building and planning more water storage for the state, which should help assure good crops in future years. Here in the West, we all love the beauty of our mountains, but we should also appreciate them for the water storage they provide -- a benefit that farmers in most other parts of the country don't enjoy.

Another thought about our mountains: due to their ruggedness, they are public property and are lost to normal crop production. Only about 3 percent of Iowa's land area is not in crops; only 3 percent of Utah's land area is planted to crops. If we are to realize any food-producing benefit from the nearly 80 percent of our state that is government-owned, it can only be through livestock grazing. That practice converts the inedible (to humans) mountain plants to good food for people.

There are many people, mostly non-Utahns, who feel that a lot of our mountain land should be in wilderness areas, without multiple use, including logging, livestock grazing, etc., permitted. The fact is that cattle and sheep help the feeding situation for deer, elk and other wildlife by keeping under control the growth of grasses that wild animals don't normally eat.

We hope this report will give you a feeling for the great contribution agriculture is making to the state's economy. With the production tools available today, less than 3 percent of the population can feed the whole nation, plus many people overseas. This means the rest of our workers are free to make the luxury items than mean such a good way of life for most Americans.



Sincerely,

Miles "Cap" Ferry, Commissioner
Utah Department of Agriculture

Utah Department of Agriculture

MISSION STATEMENT

The department has a three-fold mission: To conserve and develop Utah's agricultural resources; to improve Utah's agriculture and allied industries financially; and to protect consumers, producers and processors.

The main goals of that three-part mission are in the following areas:

1. Development and Conservation

To protect, conserve and develop Utah's agricultural and natural resources, including water and land, among others.

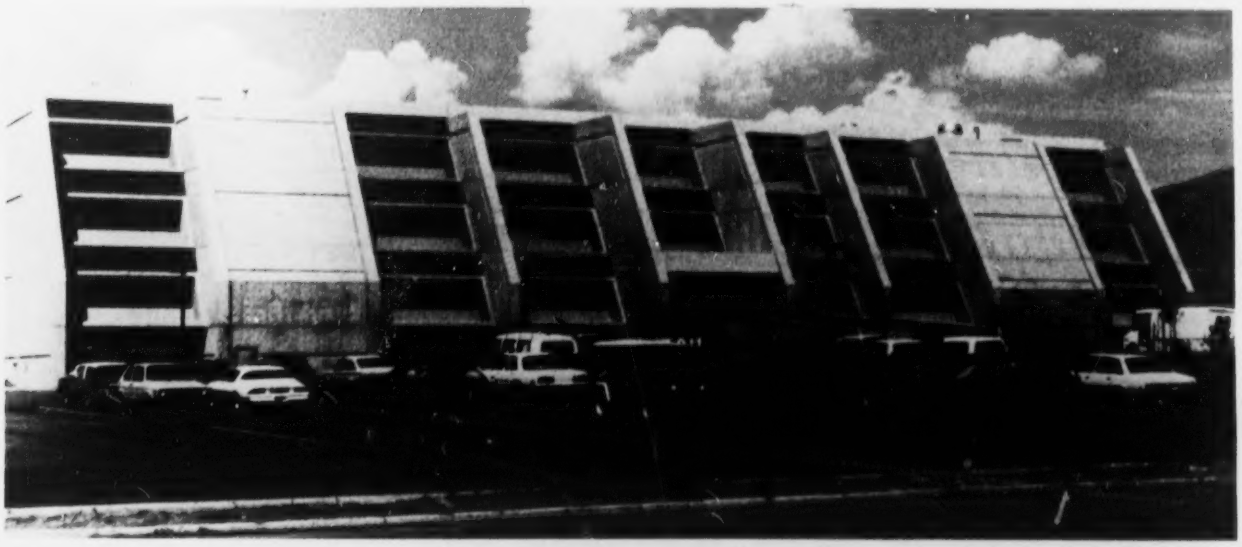
2. Marketing and Promotion

To strengthen Utah's agriculture and allied industries financially by expanding present markets and developing new ones for Utah agricultural products; to help develop new products and production methods; and to promote in-state processing of Utah agricultural products for a stronger state economy.

3. Regulation

To protect public health and safety as well as agricultural markets by assuring consumers of clean, safe, wholesome, and properly labeled and measured or weighed products. This includes products inspected by UDA's animal industry, plant industry, weights and measures, and food and dairy inspectors, plus other consumer products such as bedding, quilted clothing and upholstered furniture.

All the programs, planning and work of the Utah Department of Agriculture to improve Utah's farm and ranch economy and protect the state's buyers as well as sellers of farm products originate in this headquarters building in Salt Lake City.



Commissioner's Office

Despite a nationwide drought in 1988, the Utah agricultural economy made a continued recovery from the depressed situation of the mid-1980's. The Utah Department of Agriculture made great headway on its goals for the year.

Following are some of the goals spelled out in last year's annual report and the progress made on them:

- **More sophisticated lab tests** -- Purchase of new equipment has allowed new testing and faster results.
- **Biotechnological research** -- Work is being done on about a dozen agricultural research projects at USU.
- **Increased "Utah Works" promotion** -- The Department launched the second phase of this program designed to get Utahns to buy Utah products, with in-store promotions and use of the "Utah Works" logo in newspaper and television advertising by a number of cooperating stores.
- **Publicity for department programs** -- Increased numbers of news releases and other publicity gained fine media cooperation and resulted in broadly increased public awareness of the department and its programs.
- **Increased resource conservation** -- With the support of UDA, the Utah Soil Conservation Commission, and federal conservation programs, the state's 38 Soil Conservation Districts are making significant improvements to Utah's soil and water resources. More acres are receiving improvements than ever before.
- **Loan mediation for producers** -- The Department established a mediation program and hired a mediator with long experience in agriculture to help lenders and borrowers work our their problems. The program has already helped several producers.
- **More push for farm and ranch profits** -- Publication of enterprise budgets in this and earlier years' reports gives farmers and ranchers a way to get a handle on their costs.
- **Still faster turn-around for seed and feed tests** -- A target time of three weeks has been reached for all seeds but those that take more than three weeks to germinate. Feeds are also tested as soon as they come in.
- **Mechanized grain-sampling facility in Ogden** -- This remodeling project was completed and has operated successfully for several months. It has reduced the time required for grain truck drivers to get test certificates on their grain and has increased the safety of grain samplers during winter months, when trucks are icy.
- **Cooperation with private industry in research, Ag in the Classroom, and other projects** -- Private funding for joint projects such as a new agricultural exhibit at the state Capitol, a new teachers' handbook for the Ag in the Classroom program, and other projects attests to the close cooperation between the Department and private industry.

THE YEAR'S HIGHLIGHTS

Legislation

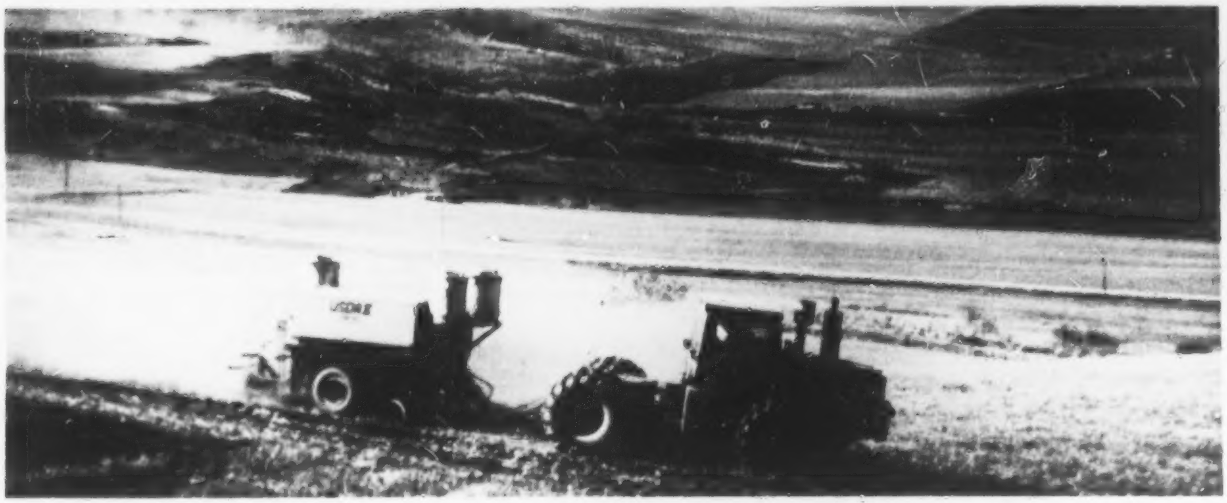
Among the bills passed by the Legislature in early 1989 of keen interest to the Department were the following:

- Assessed five cents per animal unit month (AUM) on state land grazing leases to control noxious weeds. Also created a noxious weed advisory committee in the Utah Department of Agriculture to advise the Commissioner.
- Created a public rangeland mediation program (Section 8), to be administered by UDA. It provides a way for managers of public rangeland -- BLM and the Forest Service -- and holders of grazing permits to work out differences on rangeland management, with a mediator'shelp.
- Appropriated $3 million for a loan fund to go to farmers who suffered damage from the Quail Creek Dike failure in Washington county in January 1989. Money from the repayment of the loans will go to the Water Resources Construction Fund for water development projects.
- Authorized a committee to decide on future development of Utah Lake and granted the group powers to develop that facility.
- Established a task force to study use and sale of Bear River water.
- Added raccoons to the list of depredating animals controlled by the Animal Damage Control unit, a joint state (UDA) and federal program. A bill failed which would have established a fund to compensate farmers and ranchers for damage done by cougar and bear. However, the Division of Wildlife Resources agreed to control depredating animals to help prevent damage.
- Put further limits on open burning. In its original form, the bill would have limited agricultural burning activities, but those problems were amended out of the final bill.
- Authorized agricultural cooperatives to hold telephone conference call board meetings, limit liability of officers and directors, and otherwise gain same protection as other corporations.

Research Support

The Department helped secure $50,000 in an appropriation through Higher Education for the Biotechnology laboratory at Utah State University in Logan as well as committing $50,000 of its own research budget to support other studies at USU. Research projects supported were:

- **Irrigation Water Management** -- Developed techniques to conserve water, energy and time by determining the exact crop water requirements and timing. This aided conservation on farms.
- **Conservation Tillage** -- Determined effectiveness of reduced tillage practices on different soils, crops, etc., for savings in time, equipment, fuel, soil compaction, water,



The goal of all UDA's research support is to improve the state's agriculture and the life of all her citizens.

and other production cost factors.

- **Calibration of Near Infra-Red Equipment** -- This research has made it possible for farmers to get instant results from tests for protein, moisture content, and other factors in different kinds of hay, grain, and most other feeds.
- **Weather Network** -- Remote control weather stations located in 20 main crop production areas give radio reports of weather conditions upon command from USU, permitting scientists to issue weather alerts to farmers when crops are in danger. (The U.S. Meteorology Service also uses these stations for state-wide weather reports.)
- **Seed Certification** -- Researchers developed standards for about 20 new varieties of seeds, so crop producers can use those varieties with assurance that they are getting the quality they pay for.
- **Enterprise Budgets** -- This project funds the writing of the various enterprise budgets contained in the last pages of this annual report. It allows farmers and ranchers to compare their own production costs with those of other producers.
- **Farm Safety Survey** -- This research study determined how safe or hazardous farms and ranches are and produced a list of primary hazards.
- **Erosion Plots** -- Developed information on erosion rates for different types of land and crops and on off-site impacts, such as stream pollution. Erosion control techniques are demonstrated each year at a Conservation Field Day jointly sponsored by UDA and other agencies.
- **Alternative Crops** -- This research produced seeds of natives plants for use as crops for rangeland improvement. A growers' guide to seed production is now in print.
- **Shrub Mortality** -- After range specialists observed that there was a die-off of some feed and forage shrubs in the state, researchers checked into the reasons. They found a temporary imbalance in water, insects, etc.
- **Embryo Transplants** -- Scientists developed disease-free embryos, which they implanted into ewes to avoid passing scrapie and other diseases on to the lambs.
- **Ram Epididymitus** -- No reliable test was available for this serious disease until USU researchers developed such a test for the benefit of Utah's important sheep industry.
- **Role of Agriculture** -- The impact of Utah's agricultural industry on the state's economy -- about $8 billion in assets and sales -- was the subject of this USU research study.

Animal Damage Control

Documented predator losses to Utah livestockmen in 1988 totaled $3,213,000 just for sheep. Coyotes caused about two-thirds of those losses, with mountain lions, bears, and dogs next in number of kills. UDA's animal damage control unit worked to control losses by means of trapping and aerial and surface hunting. A total of 4,853 coyotes were killed in 1988 by government hunters, with fur trappers probably accounting for five times that many. Officials estimate the state's coyote population at 85,000.

Utah's cooperative program of state and federal control officers working together on the same staff is a model for the rest of the nation.

Ag in the Classroom (AITC)

This program promotes a better understanding of agriculture among Utah students in Kindergarten through sixth grade. (Some other states include secondary schools.) Two thousand copies of a 120-page teacher's handbook, "Utah Agriculture and Me," was printed during the summer of 1988 for distribution in classrooms during the 1988-89 school year.

Edith Bowen School on the USU campus in Logan -- the official distribution center for new educational programs in the state, did in-service training with several hundred teachers, while county Farm Bureau women's committees and other groups also distributed copies to teachers. Most of the handbooks went to the schools free of charge, with the $2.00 cost per copy paid to AITC by the sponsoring groups.

A revision is planned for the summer of 1989. Hopefully, sponsorship funds will be available to pay the costs of revising and printing enough copies for all 9,000 K-6 classrooms in the state this fall.

Administrative Services

Providing support services for the other six divisions of the Utah Department of Agriculture is the main function of the Administrative Services division. The following are the main areas of activity for this division:

- **Budget:** Administrative Services prepares the annual budget, based on division estimates, and provides accounting and computer services to provide a monthly report to each division director. This includes tracking 20 different programs for revenue and expenses.
- **Personnel and payroll:** This function includes keeping payroll and leave records on about 160 full-time employees and about 50 part-time employees, maintaining personnel and payroll records, helping with hiring new employees, keeping tax records, etc. During the report year, division personnel prepared and published a policies and procedures manual.
- **Purchasing and other finance and accounting functions:** Handling all aspects of purchasing of large equipment down through office supplies, making deposits, keeping all travel expense records, following proper bidding and purchasing procedures, and working with the Utah Department of Administrative Services.
- **Data processing:** Doing maintenance and upgrading of computer equipment for all divisions, writing programs for such special applications as brand recording (with drawings), making back-up tapes of computer files several times a week, supervising computer training schedules for all department employees, etc.
- **Licensing:** Preparation of about 10,000 renewal licenses for bedding and upholstery manufacturers, nurserymen, beekeepers, buyers of agricultural products, livestock markets, milk haulers, food processing plants, and others.
- **Contracts and administrative rule-making:** Preparation of contracts for outside services -- advertising agencies, marketing organizations, and others. If changes are needed in our rules, the division ensures that the proper practice is used in filing them on time.
- **Miscellaneous services:** These include managing the UDA motor pool, operating the mail room, maintaining equipment inventory records, overseeing telephone services, purchasing and storing supplies, buying and supervising audio-visual aids equipment, handling risk management (self-insurance) records, doing leave accounting, providing petty cash, applying for and securing grants, etc.

Public Information

This past year saw an emphasis on news releases and other mass media coverage of agricultural affairs and department programs. The information officer coordinates news stories with radio, television and newspaper reporters, covers events and speeches for news releases, and handles media relations throughout the state.

A new destop publishing system (being used for this section of this year's annual report) resulted in the production of several publications, including a six-page flyer, "Facts and Figures on Utah Agriculture," which lists key statistics on county rankings, production figures, etc.,for students and other interested citizens.

Other duties of the information officer include publishing a monthly employee newsletter; an external quarterly publication to political, business and farm leaders; special publications for specific audiences -- such as students, school teachers, and others; a monthly economic development report for state meetings; schedules of junior livestock shows in the state and related material; and other printed material.

Preparation of exhibits for educational conventions and workshops, for the State Capitol exibit area, and for special uses is part of the section's responsibility. So is preparation of audio-visuals and, occasionally, speechwriting.

Many queries come to the department about Utah agriculture -- from students in Utah and elsewhere, from advertising and public relations agencies, and other sources. This section is responsible for preparing material to answer such inquiries and to handle many of the replies.

The information officer represents UDA on a number of committees -- the state water education committee, the state Ag in the Classroom committee as chairman, the Utah Junior Livestock Show Association as secretary-treasurer, the public awareness committee of the Agriculture Advisory Council, and others.

Agricultural Development & Conservation

This division works in a variety of areas in helping the farmers and ranchers of Utah improve their operations, including but not limited to the following:

- Soil conservation
- Water quality
- Agriculture resource development loans
- Rural rehabilitation loans
- Encouragement of new water development
- Land and agricultural enterprise development
- Increased production efficiency and profitability
- Follow-up on agricultural research, especially at Utah State University
- Farm energy program
- Liaison with the governor's agriculture advisory council

Soil Conservation

This section's main function is to work with the Utah Soil Conservation Commission, a state-wide group appointed by the governor, and with the state's 38 Soil Conservation Districts (SCD's). This provides UDA with one of its closest links with owners and managers of the private land in the state.

The name given to the 1985 national farm bill was the U.S. Food Security Act (FSA). It established a conservation reserve program and other programs to set marginal farmland aside, not to be used except in emergency (such as the 1988 and '89 droughts in the Midwest).

Utah's Soil Conservation Commission, the SCD's, and the Utah Department of Agriculture are helping to implement the FSA programs in addition to carrying out their regular activities.

After the 1985 farm bill was passed, Utah producers agreed to put close to their allotted amount of land into the conservation reserve program. At the end of the report year, nearly 500 farmers had complied with the program requirements. The CRP land is to left in reserve for ten years, both to reduce soil erosion on marginal land and to keep hay and grain supply close to demand, thus avoiding the buildup of over-large reserves.

Water Quality

Non-point source pollution activities of the division has a broad influence on Utah agriculture, due to the reliance of Utah food and feed producers on irrigation water for most of their land. The pollution control work also affects Utah's cities, industries and recreation.

The program helps Utah landowners and operators manage their irrigation water and waste water systems to fall within federal and state pollution control standards. UDA has teamed up with the Utah Department of Health, U.S. Environmental Protection Agency (EPA), USDA agencies, and others to ensure that Utah's water supplies are of high quality.

Twenty-one watersheds in Utah have been identified as high-priority areas for non-point source pollution control programs. Of these, six have their plans completed. They are: Little Bear River, Echo Creek, Muddy Creek, Montezuma Creek, Strawberry Reservoir, and the Jordan River.

The division has begun assessment of groundwater in the state to determine if there is pesticide contamination occurring and to prevent future contamination.

Agriculture Resource Development Loans (ARDL)

Helping Utah farmers, ranchers and food processors put new practices into effect is the purpose of this low-

Helping farmers and ranchers make improved use of irrigation water, along with working to develop more sources of water, is the purpose of several Utah Department of Agriculture programs to help both rural and urban Utah.

interest revolving loan fund managed by UDA.

Practices implemented in the past, with the help of the fund, include soil and water conservation techniques -- such as installing irrigaion systems -- that improve overall farm efficiency. Loans made for rangeland improvement have helped increase the livestock carrying capacity by several times.

Other farm borrowers have improved wildlife habitat, built soil erosion control devices, and carried out other soil and water conservation activities.

Over the years, the Utah legislature has appropriated $14.9 million to the ARDL fund. However, in the 13 years of its operation, $21 million of projects have been put in place to enhance our soil and water resources.

A second loan officer added to the staff a year ago has been of crucial help in administering the increased workload of the ARDL program.

Rural Rehabilitation Program

This $1.5 million revolving loan fund started out during the Depression days of the early 1930's as a federal program to help farmers hang onto their farms in those tough years. When the program ended, the federal government gave the funds to the states for use as seed money in helping young couples get started in farming and to help other farmers buy additional land or livestock to make their operations more financially effective.

The original $300,000 has grown to its present size only through interest earnings, but the program has financed many projects in the agricultural sector of rural Utah.

Water Development

Plans to develop the water in the Bear River of northern Utah -- the last major source of undeveloped water in the state -- are slowly moving toward formation of a conservancy district in Cache county, Logan's location. A district is already functioning in Box Elder county, and a legislatively created Bear River Task Force is helping move planning and action along.

The Bear River flows through three states -- Wyoming, Idaho and Utah -- on its way to the Great Salt Lake, where more than 2 million acre feet of water flow into the lake every year. Under the plan now developed, up to seven reservoirs would store some of the water. Part of it would be used for irrigation, wildlife, municipal and industrial uses, and some could flow south to Salt Lake City or even farther.

Other water development projects, such as the Central Utah Project, also involve UDA effort.

Research Grants

The Agricultural Development and Conservation division administers research moneys appropriated for UDA to use in advancing the science of agriculture. The funds are granted to various applicants based on the potential use of their findings in solving the problems of plant and animal production in Utah. Such research has made many direct contributions to increasing Utah's agricultural revenues and cutting costs on farms and ranches. Although much of the UDA-sponsored research is done by the Agricultural Experiment Station at Utah State University in Logan, other studies have taken place on rangeland areas where shrub mortality was studied, certified seeds were developed, etc.

Farm Energy Program

With funds provided by a grant from the Utah Energy Office, division personnel carry out the following activities relating to farm energy:

* Conduct energy audits on farms to help improve energy conservation.
* Provide equipment to teach conservation tillage for energy and other savings.
* Develop irrigation water management practices that conserve energy.
* Carry out educational projects on energy conservation.

PROJECTS OKAYED FOR ARDL LOANS

Following is a partial list of projects for which approval has been given by the Utah Soil Conservation Commission as eligible for Agriculture Resource Development Loan applications. Interested parties can contact UDA's loan officers at 538-7176 in Salt Lake City.

* Establishing or improving permanent vegetative cover
* Irrigation water conservation
* Sediment retention, erosion, or water control structure
* Reduced-tillage or no-till system
* Purchase of conservation equipment
* Grazing land protection
* Rangeland moisture conservation
* On-farm water impoundment reservoirs
* Spreader ditches or dikes
* Diversions / terraces
* Drainage or subsurface drainage
* Contour farming
* Alternative chemicals and fertilizers
* Noxious weed or shrub control
* Animal waste control facilities
* Streambank stabilization
* Windbreak restoration or establishment
* Cropland protective cover
* Permanent vegetative cover on critical areas
* Vegetative row barriers
* Water management systems for pollution control
* Site preparation for natural regeneration
* Shallow-water areas for wildlife
* Stream protection
* Permanent wildlife habitat
* Strip-cropping systems

Animal Industry

This division works in three important areas in supervising and enforcing state laws and programs affecting Utah livestock and poultry: animal health -- with special attention to animal diseases which can be transmitted to humans, animal identification -- brand registration and inspection, and meat inspection.

Because more than three-fourths of Utah's agricultural cash receipts come from livestock each year, the work of this division is critical to the state's economy.

ANIMAL HEALTH

The animal health section is involved in controlling and eradicating livestock and poultry diseases, supervising veterinary prescription drugs, improving animals' living conditions, checking the interstate movement of animals, upgrading the quality and wholesomeness of animal food products, and safeguarding the overall public health of Utah's citizens.

Scrapie

This very serious, slow, debilitating disease may take up to two or three years in the incubation period. Although the disease hasn't been present in Utah since 1957, it is so dangerous, and the sheep industry is so important to Utah's economy, that state officials are working with other agencies to eradicate scrapie everywhere.

The state veterinarian, who also serves as director of the Animal Industry division, spent three weeks in Australia in the spring of 1989 at a training course and tour concerned with this disease. World leaders on scrapie research were gathered there for the training and idea exchange.

Brucellosis

Utah livestock producers are fully supporting the rules for brucellosis control which were passed five years ago. The fact that Utah is a brucellosis-free state is important to the state's economy -- it means animals can be shipped in and out of the state freely.

Vaccination protects cows from abortion and also safeguards human health. In 1988, about 150,000 beef and dairy cattle were vaccinated in Utah as part of the brucellosis control campaign.

Other Diseases

Ram epidydimitus, a disease affecting sheep, is under research study at Utah State University for control possibilities. Sheep foot rot is also being studied there.

A swine disease called pseudorabies is a virus which does not transmit to humans but which can spread to cattle and other hogs. The division and the swine industry in Utah are working for total control; again, being declared a pseudorabies-free state will carry economic benefits in unrestricted interstate marketing.

Another serious problem is trichomoniasis in cattle. "Trich" is a veneral disease; a new vaccine is expected to yield good control, however.

Right at the end of the report year, a joint publication by UDA, Wildlife Resources and Public Health was distributed dealing with the control, importation, possession and transportation (CIPT) of all animals not considered livestock. This includes exotic birds, rodents, snakes, wild birds, fish and others. The implications to human health make this disease control work important to UDA and the citizens of Utah.

Embryo Transfer

In this technique being studied for possible scrapie eradication, a sheep embryo is transplanted from the donor ewe to a recipient. After the lamb is born, it must be observed for 60 months, because of the lengthy incubation period of the disease, to be sure it is really disease-free.

Researchers hope to find that the embryo is disease-free when it is transferred and that a new generation of undiseased lambs can be use as foundation stock for clean herds. The embryo transfer technique is already being used to import superior genetics; as one researcher said, "A veterinarian can put a whole herd of superior animals in a suitcase and bring it to Utah."

Serology Laboratory

Hundreds of tests are run through this laboratory daily to analyze animal blood for brucellosis, leptospirosis, vibriosis, anaplasmosis, bluetongue, and equine infectious anemia. The facility is vital in the division's battle to control animal diseases.

Identifying and controlling these diseases has a great impact on safeguarding human health. The test results are applicable to humans and are correlated with the Utah public health system.

Other diseases under the careful scrutiny of the state veterinarian are tuberculosis in pheasants, pullorum in chickens and pheasants, and avian influenza in poultry. All three have caused problems in Utah in recent years. The division also monitors cattle for tuberculosis constantly because of the disease's possible effect on humans.

MEAT INSPECTION

Like the other food inspection services of UDA, the meat inspection section assures Utahns that only safe, inspected products are for sale in the state. Meat inspectors make sure that all meat products are wholesome, unadulterated, and properly marked, labeled and packaged.

A year ago, the state's meat inspection program performance plan was accepted by the federal government -- which praised it as one of the best plans in the nation. It is saving thousands of travel dollars for Utah taxpayers through local training and certification of meat inspectors. All the people hired recently have been trained and have passed federal certification reviews in-state -- a process of four to five months.

Talmadge-Aiken Act

Inspectors working under this legislation are known as TA inspectors. Utah's state meat inspectors are cross-licensed as federal inspectors; because of that, provisions of the TA law allow certain packing plants in Utah to ship meat across state lines with state inspectors present in the plants. They do the federal inspection that interstate shipment requires.

Most Utah packing plants don't ship out of the state and only need state inspection.

ANIMAL IDENTIFICATION

This section handles the registration and inspection of brands, often encountering livestock theft being attempted. A total of nearly 30,000 brands -- 2,810 of them new -- were under registration at the end of the report year.

Ten full-time and about 45 part-time brand inspectors located all over Utah check brands at livestock auctions, ports of entry, roadblocks and elsewhere. Utah law requires that all livestock owners moving or showing their animals have proof of ownership with them; brand inspectors look at this paperwork to protect owners from theft.

As livestock thieves are finding out, UDA's enforcement of brand inspection laws is effective -- thefts are being detected and solved quickly, with close cooperation between inspectors and county and local law enforcement officers. Stiff fines and jail sentences have been handed down in a number of cases during the report year.

In one recent case, cattle stolen in 1987 were sold at the Spanish Fork auction at that time. But careful note-taking and patient investigation by the brand inspector and county sheriff led to a conviction, a one-year jail sentence, and a $15,000 fine two years later. In that case, the thief, under questioning at the auction, produced two bills of sale. Later investigation showed they were invalid, however.

Inspectors were able to return 918 cattle, 204 horses, and 650 sheep to their rightful owners during the year. Many of them strays, the animals' total value was $697,868.

Inspectors checked about 648,000 head of cattle and 13,095 horses last year as the animals were being sold, transported, exhibited or slaughtered.

Through good cross-utilization between the animal health section and animal identification, brand inspectors are watching for signs of health problems in livestock and reporting them to the state veterinarian.

Checkoff funds for beef marketing and research totaling $568,747 were collected by inspectors last year.

Controlling several serious diseases of sheep is essential to that important sector of the Utah agricultural economy. Because about 70 percent of the state's land area is government-owned, converting range plants to food for humans can only be done through livestock.

Chemistry Laboratories

Last year was no exception in the recent trend of UDA's laboratory analyses -- greater numbers of tests with the same staff, made possible through new equipment and more effort by lab employees. Although the increase in analysis count wasn't as sharp in 1988 as in 1987, it still rose by nearly 2 percent.

Test results are getting back to users more rapidly than in earlier years, with a higher degree of reliability. Utah's lab ranks in the top ten in the nation in certain types of tests which can be performed on equipment at the Utah Department of Agriculture.

With New Tests Needed, New Equipment Is a Must

The purchase, during the past year, of a GC/MS unit has given lab analysts here the ability to detect unknown chemicals in samples, as well as easing almost impossible earlier detection requests. It has made such tests much faster and more reliable.

Equipment added the previous year (an HPLC chromatograph) was especially useful during 1988. It detects sulfamethazine in milk up to parts per billion (ppb) levels; carbamates -- pesticide residues -- in produce, feed, soil, plants and groundwater; and aflatoxin in food and feed.

Other workload increases included more testing for lead in gasoline, sulfamethazine in milk, and fat in ice cream. The number of consumer complaints in 1988 nearly doubled from the previous year, increasing from 74 in 1987 to 140 last year.

New Food Safety Concerns Spotlight Lab Testing

Actress Meryl Streep's innuendos (on nationwide TV in March 1989) about the dangers of Alar use on apples was only the latest in a steady stream of publicly expressed concerns about food safety in America. And as spokespersons for animal rights, vegetarian and environmentalist groups continue to level charges at the nation's farmers, meat testing and other food analyses will continue to challenge the UDA laboratory.

Two distinct laboratory operations at UDA do testing on food products. The chemistry laboratory handles the analysis of meat and meat products, as well as running tests on feed, fertilizer and pesticides.

The bacteriology lab handles analyses of milk and dairy products; it also does water testing. Analyses for the Food and Dairy section include testing raw milk for somatic cells, bacteria count, and the presence of antibiotics. SPC and coliform tests are run on processed milk. Butterfat testing is only done occasionally, when a problem is suspected on a dairy farm.

Consumer Complaints Are an Important Test Area

Although the number of complaints from consumers is very small (140) compared to total analyses last year (35,010), they are urgent when they do come in. Reasons for such testing include suspected foreign matter in food, possible fungus problems, and a wide variety of other complaints. Lab analysts check to see if the complaints are valid and, if they are, turn the matter over to compliance officers at the department to deal with the problem.

Check Sample Testing Provides Accuracy Data

Check samples -- samples of known and unknown content to the senders -- come to the UDA laboratories from a number of sources, depending on the type of product being used. The UDA lab runs tests on them for contents requested, then Utah's findings are compared with those of other laboratories.

Although credibility was a problem for Utah's lab years ago, accuracy rates high now in the Beehive state. Besides UDA's high rating in some tests, another evidence of its accuracy lies in the fact that the present state chemist has never been called into court to testify on disputed laboratory findings; other labs verify UDA's results in cases that are heard in courts.

Quilted Clothing, Upholstered Fabric Tests Are Many

Labels on such products as down-filled hunting jackets, sleeping bags, pillows, and quilted upholstery fabrics give guarantees of content that must be checked carefully. Some involve allergies, and some involve risks to health and safety when mountain weather is a factor.

When testing such products, chemists must separate down (small feathers from geese and ducks), feathers, fiber, various types of man-made materials, etc., then calculate percentages to check label accuracy.

Testing accuracy is a major concern in these analyses and all others handled at the UDA laboratories. Quick service is another concern. These features, aided by more sophisticated equpment and computers, help assure Utahns of quality in the products they buy.

Food & Dairy

In-Store Inspections Track Food and Dairy Quality

Ten food and dairy inspectors and a small office staff provide Utah consumers with careful protection of their food supply. This unit conducts regular inspections at food and dairy outlets to assure that only wholesome, safe, properly labeled products are offered for sale here.

The inspectors regularly check about 2,100 food establishments, 740 dairy farms, and about 40 dairy plants to be sure they comply with state requirements for construction and sanitation.

Grocery stores, bakeries, meat markets, warehouses, canneries, bottling plants, warehouses, candy factories, flour mills, rabbit processors, and any other establishments that produce or sell food products at wholesale or retail are subject to UDA's food and dairy inspections.

Increasing time is being spent on inspections at Oriental food stores because of the immigration of Asiatic people in recent years.

Some of the things inspectors look for in an establishment are:

* Proper construction for good sanitation.
* Production of products with the use of good manufacturing practices.
* Use of good hygiene by employees.
* Equipment that is kept clean and in good repair.
* Proper use and storage of toxic chemicals.

In retail outlets, inspectors watch for accurate labeling of ingredients; they eye health claims made on package labels which may be unsubstantiated or inaccurate.

Dairy inspections take place at both Grade A and manufacturing milk producers' farms. Food and dairy employees check to be sure that both the animals and the physical facilities comply with state standards. Inspectors also work with dairymen to educate them on the proper use of antibiotics and other animal drugs.

The bottom line on these inspections is that a wholesome milk product must be delivered to the dairy plants. This means that milk haulers and their trucks must also be inspected regularly to be sure proper procedures are followed, since milk quality can otherwise be reduced during transportation from farm to processing plant.

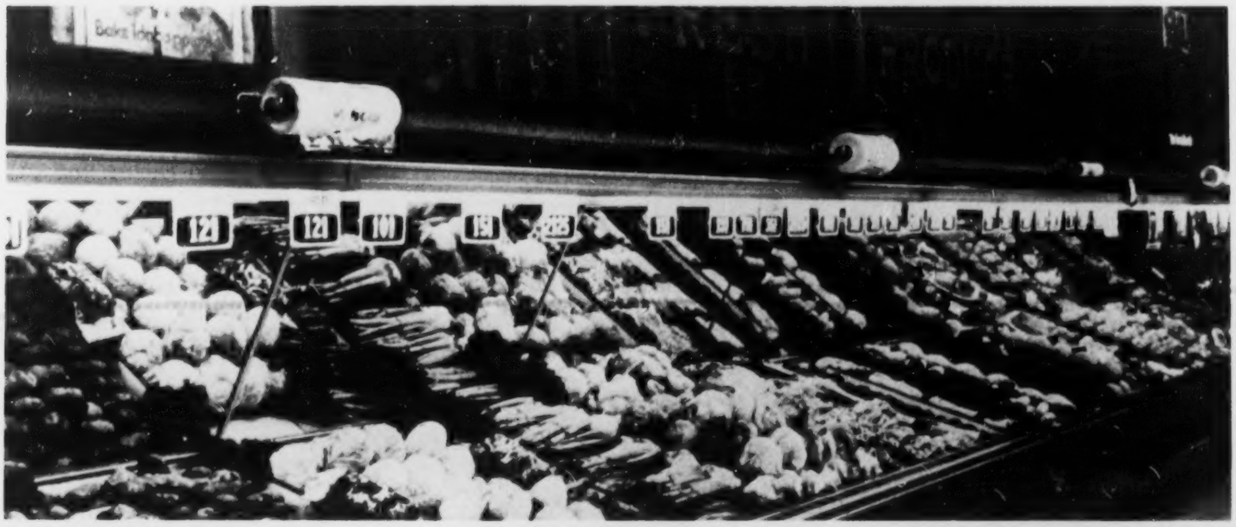
Utah's dairy plants include some of the newest and most sophisticated in the nation. Utah is an exporting state for dairy products and enjoys a fine reputation for high standards and excellent quality. This means that UDA inspectors must be knowledgeable on state-of-the-art processing equipment and procedures to protect this reputaion.

Section Inspects Meat in Sales Outlets

Although a section of UDA's Animal Health division inspects meat as it is handled in the processing plants, it falls to the Food and Dairy section to enforce Utah's meat laws and to investigate suspected violations.

Inspectors review all establishments that handle meat products, collecting samples of ground beef to be sure the meat complies with state standards. When they locate

Assuring Utahns of a clean, wholesome, safe food supply is one of the functions of UDA's food and dairy section. Inspectors visit producers, processors, transporters and retailers throughout the state.



products that don't bear the official inspection mark or which may be from uninspected sources, they investigate these violations.

Egg and Poultry Grading Takes Place at Plants, Stores

UDA's staff of egg and poultry graders work both at the processing plants and in retail stores to be sure Utahns get a supply of safe, wholesome eggs and turkey meat. (Utah has no broiler industry, although prospective producers are looking into possibilities.)

One inspector at a Salt Lake City plant keeps an eye on the dirty eggs, checks (cracked eggs), and leakers go for breaking and pasteurizing before the processor sells them to bakeries and other quantity users. The other graders divert any such eggs to that processor. (Utah has only two laying hen operations which are USDA-approved shell egg plants.)

Poultry graders spend their time at turkey processing plants in central Utah, where production is declining.

The other type of grading operation is in retail stores, where UDA employees check for grade, size and wholesomeness. At least one visit to every retail outlet every three months is the goal of the poultry and egg unit employees. The current food-and-health questions that consumers are asking themselves have created a special concern in retail store reviews -- some egg and other food packages are carrying cholesterol labeling these days, and the accuracy of such wording is subject to review by UDA.

Quilted, Upholstered Products Require Constant Watch

Studying the newspaper -- at least some of the classified ads -- every day is a way of life for the investigative officer of UDA's upholstered furniture, bedding and quilted clothing section. That's because part of his job is to keep informed on products and services in his area of responsibility that are being sold through such advertising.

State statutes require that upholsterers who renovate furniture and bedding items be licensed. The law also requires them to tag items with a green-colored owner's material tag indicating what work was done on the specific article of furniture or bedding. Those procedures are for the protection of consumers, who rely on UDA's licensing and inspection procedure to guarantee that they get what they pay for. (Licensing increased during the report year, partly due to the entrance of a large chain of discount stores into the Utah market.)

Unfortunately, some furniture renovators try to avoid the cost and scrutiny of licensing; checking furniture repair ads helps the section supervisor to track them down.

Consumers wanting to have an upholsterer make or repair furniture for them should ask to see the upholsterer's state license -- a wallet copy is provided by UDA. This assures the buyer that the supplier has been inspected and has the law tags to attach to the furniture or bedding items. The customer should look for the green tags upon completion of the job.

Down-filled items -- jackets, sleeping bags and similar items -- are another problem area for UDA. The main reason is economic, because down is one of the most expensive materials in the world. Most of it comes from China. A manufacturer of down-filled products always has the temptation present to cut costs by adulterating the down with waterfowl and landfowl feathers.

Misrepresentation of down-filled items in advertising and on hang tags is a widespread practice in the industry and requires constant vigilance on the part of UDA staff members.

Not only are the products midadvertised; many purchasers are not familiar with the terms and requirements of such products. Understanding of the loft factor -- the insulating value of down -- and percentage requirements are important. (See the box below for more information.)

Because of consumers with allergies, checking for accurate labeling of products containing synthetic fibers treated with resin is an important function of this section. Using resin to treat bulk fibers bonds the material together, helps avoid shifting inside the product, and adds weight, which increases the revenue from such materials. But resin triggers allergies and needs to be mentioned on the label.

How Percentages of Down Must Show on a Label

- **To be advertised as down-filled, a product must contain not less than 70 percent down clusters and a maximum of 10 percent down fiber, or 80 percent total.**
- **When a label shows "80 percent down," it means 80 percent of the 70 percent down clusters required.**
- **Thus, a product advertised as 80 percent down may only contain 56 percent down clusters, 8 percent down fiber, and the balance in waterfowl feathers or other materials.**
- **Read the label and understand the terms!**

New Staff Investigator Aids in Law Compliance

During the winter of 1988-89, UDA added a trained investigator to its staff to help track down and correct violations of the state statutes. He is working on motor fuel compliance and investigating health foods sold in Utah, which is one of the biggest markets in the nation for such products.

The new man is also responsible for the "Products of Utah" program which requires people who buy products from farmers but who don't pay in cash must be bonded and licensed by the state. All agricultural sellers should check on a buyer's license and bond unless they are being paid in cash or a cashier's check or money order.

Marketing & Promotion

Economic development, declared by the governor as Utah's number one priority, is also the main target of UDA's Marketing and Promotion division. Expanding markets both inside the state -- with the "Utah Works" program and action on increasing in-state processing facilities -- and outside are targets of division activity.

Several foreign trade delegations have visited Utah in recent months to investigate purchases of beef, fruit, hay and other commodities. Pacific Rim nations are especially interested in Utah products. In a recently completed transaction, a Japanese importer bought a pen of beef cattle for feeding and slaughter in the Beehive state, then shipment of the meat to Japan for distribution to retail store chains.

"Utah Works" Is On the Move

Customers visiting the grand opening of a new store south of Salt Lake City in the spring of 1989 were greeted by a huge in-store promotion of Utah products. The occasion was the kickoff of phase two in this long-range effort to get Utahns to buy Utah products and services.

The first phase of "Utah Works" was a mass media advertising campaign to acquaint Utah consumers with the wide variety of products manufactured or processed here. It also encouraged businessmen to use Utah products in their stores, where an equal choice is available.

The second phase of the program will expand the enrollment of businesses using point-of-sale promotional material and including the "Utah Works" logo in their own mass media advertising. Mailings are going out to about 1,400 businesses in the state. As the report year ended, another schedule was ready to start in the mass media.

UDA Appoints Groups to Promote Beef Overseas

Hoping to increase the sale of Utah beef abroad -- especially in the Orient, Utah's Commissioner of Agriculture signed a contract this spring with a state and a national organization, working as a team, to promote local beef overseas. The contract was also signed by the state director of Community and Economic Development.

The Meat Export Federation, a national group already with offices in Asia, and the Utah Beef Council sucessfully campaigned for a $50,000 promotion contract with UDA's marketing division.

Japan already buys a high percentage of this nation's food exports, and the main sales effort on beef will focus on that country, which in 1991 will remove all limits to beef imports. Japanese consumers fit into two distinct markets -- older consumers who want the traditional beef, heavily marbled with fat, and the under-40 buyers who serve larger portions of leaner (and less expensive) American-style meat. Because the latter type is what cattle feeders in Utah and the rest of the nation are producing, the new promotional campaign will lean toward that buyer group.

Division Working to Put Together Sheep Project

During the past year, an East Coast tannery approached Utah officials in hopes of building a plant in the state to process about 200 pelts a day into leather. A Brigham City wool processor quickly agreed to handle the wool, but the search for both a source of that many animals and a market for the meat proved more complicated.

UDA's marketing director worked with sheep industry representatives on the challenge. Two processing plants were located, one in northern Utah and one in the southeastern part of the state. But because most Utah lamb feeders have long-established markets for their animals, and because the market for meat is so competitive, negotiations were still going on at the end of the report year for a solution.

Cherry Producers Take a New Marketing Direction

Utah's growers of tart cherries -- now being called red cherries because "tart" doesn't translate well into Japanese -- have voted to join a new research and marketing group intent on expanding both the number of processed products and the volume of sales to Pacific Rim countries.

That group, the Cherry Marketing Institute (CMI) has already developed such new products as cherry-almond sausage, cherry mustard, and cherry-almond paste for croissants.

Utah growers have approved doubling their promotional assessment from $5 to $10 per ton to meet the CMI funding level. A producer referendum is being prepared for submission to the legislature, with a proposal that voters must either have at least 300 tart cherry trees or sell part of ther crop to a processor.

Plant Industry

Insect pests. Noxious weeds. Plant diseases. Seeds that germinate poorly. Unhealthy nursery plants. Grain that's below the grade at which it's priced. Feeds and fertilizers that don't contain what the label says. Agricultural chemicals that aren't registed in Utah.

These are only some of the problems UDA's Plant Industry division covers in its efforts to protect sellers and buyers, producers and consumers, the environment and business, and other groups from a variety of risks.

Utah state law contains 12 agricultural statutes; eight of them fall under this division's responsibilities. An office staff of specialists in pesticides and fertilizers; noxious weeds and fresh fruit and vegetable inspection; entomology; and grain, seed and feed inspection plus a field staff of 15 agricultural inspectors carry out this work.

Entomology

Utah's invasion by gypsy moths was the highest-profile infestation problem during the past year. The moths threatened to defoliate and kill not only orchards and forest areas but expensive landscaping at a terrible financial loss to food producers and homeowners.

Control efforts included an extensive trapping program, aerial spraying of the east bench in Salt Lake county during the spring of 1989, and a quarantine in the same area that required inspection of recreational vehicles and other items moving out of the infested area. Some spraying also took place in Davis and Utah counties. Instead of using a chemical, UDA and cooperating agencies used a naturally occurring bacterium which is only harmful to certain insects, Bacillus thuringiensis or Bt.

Other less-publicized but important insect control campaigns focused on Russian wheat aphids, grasshoppers and Mormon crickets. Spraying with Di-syston last fall to control the aphids that attacked wheat and barley in Box Elder county aroused some controversy with environmentalists, but the inspect pests didn't appear in the spring of 1989, saving costs to farmers and the need for further use of the chemical (as of June 1989).

The Plant Industry division again hired temporary fieldmen to spray and put out bait for grasshoppers and crickets during the spring and summer of 1989. Costing well below the national figure per acre, Utah's program has been effective in reducing losses to these insects.

Protecting Utah's place in the export market for apples is an on-going apple maggot survey and detection program which was operated again in 1988-'89. Last year, the survey of adults included traps in 14,000 trees. Since the program's start in 1985, about 45,000 trees have been removed from abandoned and uncared-for orchards. About 250 fruit growers are counseled every year on orchard spray management techniques.

About 35,000 bee colonies owned by 747 licensed beekeepers came under the bee inspection program in 1988. Utah's rigid inspection program has kept disease conditions under 1 percent, and survey results have been negative in inspections for Varroa mite, a serious threat to honey production.

Fertilizers

Every fertilizer and soil amendment product sold in Utah must be registered with the Plant Industry division. UDA also licenses and regulates fertilizer blenders, monitors fertilizer applicators, works closely with the state chemist on fertilizer analyses, and visits retail outlets to collect samples and check on licenses.

Last year, 1,563 different products were registered in the state by some 220 manufacturers. Of the 434 samples analyzed, 36 failed to meet the label guarantee.

Commercial Feeds

When farmers and ranchers buy commercial feed, they assume that the feed is of good quality and that the nutritional content is up to what they are paying for. The Plant Industry division safeguards that trust by registering feed manufacturers and testing feed samples.

In 1988, UDA registered 3,508 feed products and tested 506 feed samples -- some packaged and some bulk. Of those, 44 failed to meet guarantees.

Fresh Fruit and Vegetable Inspection

This important inspection program helps protect Utah's export of fresh fruits and vegetables. Last year, more than 3,100 individual inspections checked the quality of onions, sweet and tart cherries, peaches, apples and apricots. Of that number, some 2,200 inspections were on tart cherries.

Inspectors issue an official inspection certificate that serves as a third-party verification in case of a dispute over quality and condition of the shipment.

These inspections are usually done at a processing or shipping facility, but they are sometimes done on individual farms. Since a high percentage of Utah's fruit production is shipped out-of-state, the inspections are important to Utah's economy.

Grain Inspection

Utah's grain inspection facility, located at 17th Street and Wall Ave. in Ogden, increased its number of graded samples and miscellaneous tests by about 6 percent last year. Part of the increase is due to a new mechanized testing facility that speeds up testing as well as reducing safety hazards in winter weather.

Before the new mechanized, indoor grain probe was installed, employees had to climb up on icy trucks in an outdoor area during the winter to pull samples, sometimes slipping and falling. Now a hydraulically operated probe vacuums several samples from the truck and sends them into the grading lab through a pneumatic tube.

There, testers check for moisture, protein content, foreign matter, and insect damage, then issue a certificate that protects both the seller and buyer of the grain.

Nursery Inspection

Anyone who visits a nursery or garden supply department in the spring can understand the importance of the division's nursery inspection program. UDA licenses all firms and individuals selling nursery stock -- 483 licensees in 1988 -- and inspectors visit nurseries to check on proper labeling, condition of the plants, and freedom from serious insect and disease pests.

The inspection certificates they issue make the interstate shipment of stock possible.

Pesticides

Probably no other section of the Plant Industry division comes under as much scrutiny as its pesticide regulatory work. Both the Environmental Protection Agency (EPA) and private environmental and wildlife groups take a keen interest in this area.

Utah's program of pesticide applicator training and certification has been given high praise by EPA, which oversees the program nationally. As a result of 21 applicator training sessions last year, 403 people were recertified and 750 certified for the first time.

In addition, the division licenses and monitors pesticide dealers (88 were registered in 1988) and registers all pesticide products offered for sale in Utah. Last year, 6,566 products were registered by 637 manufacturers; 117 were new products.

Division inspectors checked 1,202 sales establishments and collected 158 pesticide samples for laboratory analysis.

Of 124 invesigations of pesticide use, only 16 were found to be in violation of federal or state regulations.

Seed Testing

City homeowners as well as farmers and ranchers can buy seed in Utah with confidence because of the activities of this section. UDA employees conducted 2,045 inspections at 638 seed sales outlets last year.

In the seed laboratory, 2,846 samples underwent testing for percent of germination, purity, and presence of noxious weed seeds. This testing assures that the seed falls within label guarantees. Laboratory tests totaled 8,538, of which 133 were in violation of their label.

Nearly 2-1/3 million pounds of seed had representative samples taken last year.

Noxious Weed Control

Coordination of the weed control activities by county weed organizations and UDA's agricultural inspectors around the state falls to the division weed specialist. His goal is to enforce the state's noxious weed law, which is a protective measure for crop and livestock producers.

Much of the noxious weed problem in Utah arises on state and federal land, where livestock grazing makes weed control an economic issue. Since about 70 percent of Utah's land area is government-owned, forage quality on public rangeland can both increase the feeding value of grazing land and reduce livestock losses to toxic weeds.

Ag inspectors made 852 visits and inspections in 1988, including contacts with the U.S. Bureau of Land Management and Forest Service, which manage two-thirds of Utah's land area. Research continues at Utah State University on control of the state's most serious weeds.

Miscellaneous Activities

Plant Industry's 15 inspectors check fresh produce on sale in grocery stores and fruit stands to assure quality. They also visit farms, orchards and dealers to strengthen UDA's relations with the agribusiness community.

At division headquarters, specialists answer countless questions by telephone, correspondence and personal contact. They also attend and conduct many meetings to inform the public as well as producers on regulations.

UDA's Division of Plant Industry, through its programs of inspection and regulation, allows farmers to buy seed, fertilizer, agricultural chemicals and other inputs vital to a good crop with confidence in their quality.

Weights & Measures

Every commercial weighing, measuring, counting and timing device in Utah comes under the scrutiny of UDA's division of Weights and Measures. The division checks the accuracy of such widely different devices as postal scales, LP gas pumps, fabric meters in sewing centers, livestock scales, taxi meters, and parking meters.

Besides that, the division regulates every non-food product coming into Utah from out-of-state to be sure the weight or measure stated on the label (number of ounces, feet, etc.) match what's in the package.

Motor fuel regulation -- a third area of responsibility for Weights and Measures -- has been in the spotlight recently because the division found that a few gas stations in Utah were selling unleaded gas as regular, leaded fuel.

Division Aims for Once-a-Year Testing

Checking all such devices at least once a year is the goal of the division. Many items, such as grocery and meat scales, are checked much more often; a seal is applied to such scales to assure the public that they weigh accurately.

Devices that are moved, such as scales for cement batch plants and construction trucks, must be checked each time they are relocated.

To handle this work, the division has about 13 inspectors and laboratory technicians traveling the state and operating three laboratories at the Salt Lake City headquarters: cryogenic (vapor meter testing), motor fuel, and metrology -- checking standard weights and other measurement devices.

Thousands of devices were inspected during the report year, and many thousands of retail packages and bulk commodities were checked for proper quantity and accurate labeling.

Besides doing inspections and laboratory testing, Weights and Measures employees are constantly looking for better ways to do their job. Although the division budget doesn't always permit the purchase of equipment, employees find ways to get the job done. One inspector, for instance, turned a back-breaking, six-hour task into an easy two-hour job by designing and building a hydraulically operated weight cart. The self-propelled machine holds two 1,000-pound weights for checking livestock scales. Since the scales must be tested with weights in opposite corners of the pen as well as with them together, the inspector can get more work done in a day now with far less safety hazards.

Law Provides Problem-Solving Options

When a weights and measures inspector finds a problem -- for example, the length of binder twine in a bale may be less than the label states, he has the store manager remove the product from the sales floor first. The inspector then tries to determine if the error is intentional or due to faulty equipment, negligence, poor training, or another cause. He cautions the store manager to correct the problem. If follow-up inspection reveals the problem is still present, UDA's options under state law include writing a warning letter, issuing an administrative order to cease and desits, or even levying a fine and settlement agreement.

Consumer protection is important to the division, of course, but so is protection of the good name of a business. UDA inspectors tend to work with a business owner to clear up problems without endangering employees' jobs or cutting off a source of tax revenue for the community, county and state.

Problems encountered by weights and measures inspectors during the past year have included:

- Windshield washer solvent that doesn't give protection down to the temperature listed on the label.
- Accurate measurement of firewood. Most firewood is sold by the cord (defined as a pile 4' x 4' x 8'), but consumers often neglect to check. Sale by the pound would be more accurate in some cases, division officials believe.
- Unleaded gasoline sold through regular gas pumps, as mentioned above.
- Rapidly growing numbers of devices to be inspected, as more gas stations and other retail outlets are built.

LOOKING AHEAD

Division goals for the coming year include the following:

- Additional safety devices on the three large trucks used for checking big devices. The trucks are always heavily loaded and are on the highway a lot. One is equipped with magnetic retarders (braking devices), and another will get the retarders this coming year.
- Careful inspection of motor fuels, partly to avoid recent problems with one grade being sold from two pumps and partly because of the probable return of in-pump blending, especially with alcohol fuels. If an alcohol blend is put in a car's gas tank withouth the tank being purged first, sludge can get into fuel lines and fuel pumps.
- Possible new equipment to read bar codes on grocery store products and print them on sheets of paper for checking at check-out scanners to verify correct pricing in the store's computer. The present method requires pulling containers off the shelf to check at the scanner, then returning them to the shelves. The new equipment would save much time.

UTAH AGRICULTURAL STATISTICS - 1989

Population of Counties, Utah

County	U. S. Census - April 1, 1980						July 1, 1988 Est. 2/
	Total	Urban		Rural			
		Total Urban 1/	Percent of Total	Total Rural	Places of 1,000 to 2,500	Other Rural	Total
Beaver	4,378	—	—	4,378	3,085	1,293	4,800
Box Elder	33,222	19,060	57.3	14,162	3,730	10,432	38,000
Cache	57,176	38,464	67.3	18,712	11,095	7,617	70,600
Carbon	22,179	11,810	53.2	10,369	3,348	7,021	22,000
Daggett	769	—	—	769	—	769	700
Davis	146,540	143,499	97.9	3,041	—	3,041	184,000
Duchesne	12,565	3,842	30.6	8,723	1,677	7,046	13,100
Emery	11,451	—	—	11,451	8,209	3,242	11,300
Garfield	3,673	—	—	3,673	1,343	2,330	4,050
Grand	8,241	5,333	64.7	2,908	92	2,816	6,550
Iron	17,349	10,972	63.2	6,377	1,836	4,541	19,200
Juab	5,530	3,285	59.4	2,245	—	2,245	5,700
Kane	4,024	—	—	4,024	2,148	1,876	4,900
Millard	8,970	—	—	8,970	4,013	4,957	12,900
Morgan	4,917	—	—	4,917	1,896	3,021	5,700
Piute	1,329	—	—	1,329	—	1,329	1,550
Rich	2,100	—	—	2,100	—	2,100	1,850
Salt Lake	619,066	613,466	99.1	5,600	—	5,600	705,000
San Juan	12,253	3,118	25.4	9,135	1,929	7,206	12,900
Sanpete	14,620	2,810	19.2	11,810	6,470	5,340	16,700
Sevier	14,727	5,482	37.2	9,245	3,468	5,777	15,900
Summit	10,198	2,823	27.7	7,375	2,095	5,280	13,400
Tooele	26,033	18,754	72.0	7,279	2,745	4,534	27,800
Uintah	20,506	6,600	32.2	13,906	2,216	11,690	21,500
Utah	218,106	197,267	90.4	20,839	6,843	13,996	262,000
Wasatch	8,523	4,362	51.2	4,161	1,194	2,967	9,800
Washington	26,065	14,442	55.4	11,623	5,635	5,988	43,000
Wayne	1,911	—	—	1,911	—	1,911	2,100
Weber	144,616	127,671	88.3	16,945	2,379	14,566	158,000
State Total	1,461,037	1,233,060	84.4	227,977	77,446	150,531	3/1,695,000

1/ Urban population includes persons living in areas or places of 2,500 inhabitants or more. 2/ State Office of Planning and Budget, State of Utah. 3/ May not add due to rounding.

Farm Population vs. Total Population, Utah, 1920-1980 Censuses

Year	Total Population	Farm Population	
		Number	% of Total
1920	451,000	141,000	31.3
1930	508,000	116,000	22.8
1940	550,000	105,000	19.1
1950	689,000	81,000	11.8
1960	891,000	65,000	7.3
1970	1,059,000	38,000	3.6
1980	1,461,000	N/A	N/A

"Farm Population Estimates" Rural Development Service, USDA Statistical Bulletin.

TOP SIX STATES BY AGRICULTURAL CATEGORY, UTAH'S RANK AND UNITED STATES TOTAL

Category	Unit	First	Second	Third	Fourth	Fifth	Sixth	Utah's Rank	United States Total
GENERAL									
Number of Farms and Ranches, 1988	Farms	Texas 156,000	Missouri 113,000	Iowa 107,000	Kentucky 99,000	Minnesota 94,000	Tennessee 94,000	38 13,300	2,158,800
Land in Farms and Ranches, 1988	1,000 Acres	Texas 132,000	Montana 60,700	Kansas 47,900	Nebraska 47,100	New Mexico 45,000	So. Dakota 44,100	29 11,300	998,692
Value of Farm Real Estate, 1989 1/	Mil. Dollars	Texas 58,476	California 46,181	Illinois 35,035	Iowa 34,869	Florida 21,995	Nebraska 19,830	38 4,840	593,845
Cash Receipts from Farm Marketings, 1987	Mil. Dollars	California 15,522	Texas 9,086	Iowa 8,780	Nebraska 6,823	Illinois 6,174	Minnesota 5,809	38 596	138,094
FIELD CROPS									
Harvested Acreage Principal Crops, 1988 2/	1,000 Acres	Iowa 23,042	Illinois 21,581	Kansas 18,996	Minnesota 18,767	Nebraska 16,765	Texas 16,525	36 1,016	290,077
All Wheat Production 1988	1,000 Bushel	Kansas 323,000	Oklahoma 172,800	Washington 124,620	No. Dakota 103,390	Texas 89,600	Colorado 79,540	33 6,768	1,811,261
Other Spring Wheat Production, 1988	1,000 Bushel	No. Dakota 70,500	Minnesota 49,450	Idaho 24,700	Montana 18,000	Washington 16,120	So. Dakota 15,600	9 1,188	205,460
Winter Wheat Production, 1988	1,000 Bushel	Kansas 323,000	Oklahoma 172,800	Washington 108,500	Texas 86,600	Missouri 77,500	Colorado 75,900	30 5,580	1,560,970
Barley Production, 1988	1,000 Bushel	Idaho 51,000	No. Dakota 42,000	Washington 34,720	Montana 30,000	Minnesota 27,200	California 17,080	9 9,625	290,505
Oats Production, 1988	1,000 Bushel	Iowa 26,400	Minnesota 24,750	So. Dakota 20,000	Wisconsin 19,720	Pennsylvania 13,000	Nebraska 12,160	30 1,008	218,773
Field Corn for Grain Production, 1988	1,000 Bushel	Iowa 898,800	Nebraska 818,400	Illinois 700,800	Indiana 415,000	Minnesota 347,800	Ohio 255,000	38 2,728	4,921,191
Corn Silage Production, 1988	1,000 Tons	Wisconsin 10,005	New York 6,500	Pennsylvania 5,500	Minnesota 5,270	Iowa 4,950	California 4,186	25 940	78,925
All Potato Production, 1988	1,000 Cwt.	Idaho 99,320	Washington 63,250	Maine 22,000	Oregon 20,735	Colorado 20,156	Wisconsin 20,000	23 1,617	349,973
All Dry Bean Production, 1988	1,000 Cwt.	Nebraska 3,764	California 2,894	No. Dakota 2,701	Colorado 2,558	Idaho 2,249	Michigan 2,220	14 26	19,230
Alfalfa Hay Production, 1988	1,000 Tons	California 7,260	Iowa 5,640	Minnesota 4,560	Wisconsin 4,340	Nebraska 4,050	Idaho 3,496	17 1,872	69,282
All Hay Production, 1988	1,000 Tons	California 8,652	Minnesota 6,960	Iowa 6,760	Nebraska 6,510	Texas 5,350	Kansas 5,175	24 2,138	126,817
FRUITS AND VEGETABLES									
All Commercial Apple Production, 1988	1,000 Pounds	Washington 3,700,000	New York 890,000	Michigan 800,000	California 550,000	Pennsylvania 500,000	Virginia 480,000	25 40,000	8,897,500
Apricot Production, 1988	Tons	California 95,000	Washington 6,100	UTAH 1,200				3 1,200	102,300
Sweet Cherry Production, 1988	Tons	Washington 62,000	Oregon 60,000	Michigan 28,000	California 26,000	Montana 3,300	Idaho 2,300	7 2,000	186,200
Tart Cherry Production, 1988	1,000 Pounds	Michigan 180,000	New York 22,000	UTAH 11,000	Pennsylvania 9,000	Wisconsin 8,900	Oregon 4,000	3 11,000	236,200
Pear Production, 1988	Tons	Washington 307,000	California 303,000	Oregon 225,000	New York 17,300	Michigan 8,000	Colorado 3,800	8 2,000	870,950
Peach Production, Freestone 1988	1,000 Pounds	California 523,000	So. Carolina 340,000	Georgia 140,000	New Jersey 85,000	Pennsylvania 85,000	Washington 50,000	23 11,000	1,604,700
Summer Storage Onion Production, 1988	1,000 Cwt.	Oregon 6,649	Colorado 5,535	Idaho 4,028	New York 2,640	Washington 2,279	Michigan 2,000	8 594	24,367
LIVESTOCK, MINK AND POULTRY									
All Cattle & Calves Jan. 1, 1989	1,000 Head	Texas 13,700	Kansas 5,900	Nebraska 5,400	Oklahoma 5,200	Iowa 4,750	California 4,700	36 770	99,484
Beef Cows, Jan. 1, 1989	1,000 Head	Texas 5,445	Missouri 2,004	Oklahoma 1,893	Nebraska 1,697	So. Dakota 1,506	Kansas 1,450	31 315	32,958
Commercial Cattle Slaughter, 1988	1,000 Head	Kansas 6,306.6	Texas 5,957.3	Nebraska 5,850.7	Colorado 2,248.8	Iowa 1,920.1	Illinois 1,321.0	14 474.8	35,078.9
All Hogs & Pigs December 1, 1988	1,000 head	Iowa 13,900	Illinois 5,600	Minnesota 4,690	Indiana 4,300	Nebraska 4,050	Missouri 2,850	39 33	55,299
Commercial Hog Slaughter, 1988	1,000 Head	Iowa 24,892.6	Illinois 7,943.5	Michigan 4,918.1	Virginia 4,815.2	Minnesota 4,589.0	Indiana 4,308.4	23 261.5	87,794.6
Honey Production 1988	1,000 Pounds	Florida 25,200	California 20,800	Minnesota 19,350	So. Dakota 18,130	No. Dakota 15,180	Nebraska 10,848	30 1,476	211,511
Mink Pelts Produced 1987	Pelts	Wisconsin 1,094,800	UTAH 535,400	Minnesota 503,200	Washington 219,900	Idaho 215,000	Oregon 215,000	2 535,400	3,954,000
Stock Sheep & Lambs Inventory Jan. 1, 1989	1,000 Head	Texas 1,900	California 940	Wyoming 837	Colorado 825	So. Dakota 590	Montana 568	8 503	10,802.1
Turkeys Raised 1988	1,000 Head	No. Carolina 47,900	Minnesota 38,500	California 26,500	Arkansas 18,000	Missouri 16,500	Virginia 16,300	11 3,900	242,023
Egg Production 1988	Million	California 7,718	Indiana 5,644	Pennsylvania 5,302	Ohio 4,477	Georgia 4,294	Arkansas 3,784	30 493	69,476
Milk Production 1988	Mil. Pounds	Wisconsin 25,400	California 18,679	New York 11,426	Minnesota 10,412	Pennsylvania 10,204	Michigan 5,228	30 1,167	145,527
American Cheese Production, 1988	1,000 Pounds	Wisconsin 998,056	Minnesota 572,974	California 232,380	Iowa 131,662	Idaho 94,810	New York 84,858	10 35,897	2,756,577

1/ In accordance with ERS Agricultural Resources, Outlook and Situation Summary.

2/ Crop acreages included are corn, sorghum, oats, barley, wheat, rice, rye, soybeans, flaxseed, peanuts, sunflowers, popcorn, cotton, all hay, dry edible beans, dry edible peas, potatoes, tobacco, sugarcane and sugarbeets.

UTAH AGRICULTURAL STATISTICS 1989

CROPS: RECORD HIGHS AND LOWS FOR ACREAGE, YIELD, AND PRODUCTION OF UTAH CROPS

Item	Unit	Record High		Record Low		Year Record Started
		Quantity	Year	Quantity	Year	
Corn for grain						
Acres harvested	Thou. acres	22	1988	2	1963 & 66	1919
Yield	Bushels	140.0	1987	17.0	1934	
Production	Thou. bu.	2,800	1987	85	1934	
Corn for silage						
Acres harvested	Thou. acres	80	1975 & 76	2	1920 - 22	1919
Yield	Tons	21.0	1987	6.0	1934	
Production	Thou. tons	1,501	1980	17	1921	
Oats						
Acres harvested	Thou. acres	82	1910	10	1977	1882
Yield	Bushels	72.0	1986 & 88	25.0	1882 & 83	
Production	Thou. bu.	3,338	1914	550	1977	
Barley						
Acres harvested	Thou. acres	190	1957	8	1898	1882
Yield	Bushels	83	1987	22.0	1882	
Production	Thou. bu.	12,880	1982	242	1882	
All wheat						
Acres harvested	Thou. acres	444	1953	65	1880 & 81	1879
Yield	Bushels	45.0	1987	15.4	1919	
Production	Thou. bu.	9,750	1986	1,139	1882	
Winter wheat						
Acres harvested	Thou. acres	342	1953	120	1909	1909
Yield	Bushels	43.0	1987	12.7	1919	
Production	Thou. bu.	8,100	1986	1,862	1924	
Spring wheat						
Acres harvested	Thou. acres	160	1918	16	1972	1909
Yield	Bushels	57.0	1987	18.7	1919	
Production	Thou. bu.	4,000	1918	704	1972	
All Hay						
Acres harvested	Thou. acres	686	1930	402	1909	1909
Yield	Tons	3.61	1981	1.51	1934	
Production	Thou. tons	2,243	1987	679	1934	
Alfalfa Hay						
Acres harvested	Thou. acres	562	1930	359	1934	1922
Yield	Tons	4.10	1981 & 87	1.67	1934	
Production	Thou. tons	1,948	1981	600	1934	
Other Hay						
Acres harvested	Thou. acres	180	1947	92	1934	1924
Yield	Tons	2.1	1987	.86	1934	
Utilized prod.	Thou. tons	336	1987	79	1934	
Dry Edible Beans						
Acres harvested	Thou. acres	20	1970	1	1934-35 & 77	1934
Yield cleaned	Pounds	800	1957	200	1956,59,62,77	1954
Production cleaned	Thou. cwt.	91	1947	2	1977	1934
Fall Potatoes						
Acres harvested	Thou. acres	19.6	1943	4.3	1972	1882
Yield	Hundredweight	275	1986	45	1886	
Production	Thou. cwt.	2,153	1946	405	1886	
Summer Storage Onions						
Acres harvested	Acres	2,400	1944	550	1954 & 66	1939
Yield	Hundredweight	485	1987	200	1940	
Production	Thou. cwt.	830	1979	150	1952	
Apricots						
Utilized Prod.	Tons	10,000	1957	0	1972	1929
Sweet Cherries						
Utilized Prod.	Tons	7,700	1968	0	1972	1938
Pears						
Utilized Prod.	Tons	8,750	1954	200	1972	1909
Apples						
Utilized Prod.	Mil. Pounds	68.0	1987	2.7	1889	1889
Tart Cherries						
Utilized Prod.	Mil. Pounds	23.0	1983	1.3	1972	1938
Peaches (Freestone)						
Utilized Prod.	Mil. Pounds	44.2	1922	1.5	1972	1899

UTAH LIVESTOCK, POULTRY, MINK AND HONEY: RECORD HIGH AND LOW NUMBERS

Item	Unit	Record High		Record Low		Year Record Started
		Quantity	Year	Quantity	Year	
Cattle and Calves						
Inventory January 1	Thou. hd.	950	1983	95	1867	1867
Calves born	Thou. hd.	390	1975	129	1935	1920
Beef cows Jan. 1 1/	Thou. hd.	374	1983	107	1939	1920
Milk cows Jan. 1 1/	Thou. hd.	126	1945	14	1867	1867
Milk production	Mil. lbs.	1,171	1983	412	1924	1924
Cattle on Feed Jan. 1	Thou. hd.	81	1963 & 66	33	1986	1959
Hogs and Pigs						
Inventory Dec. 1 2/	Thou. hd.	196	1944	4	1867-69	1867
Sheep and Lambs						
Stock sheep Inv. Jan 1	Thou. hd.	2,935	1931	167	1867	1867
Lamb crop	Thou. hd.	1,736	1930	380	1987-88	1924
Sheep & lambs on feed	Thou. hd.	295	1937	18	1988	1920
Chickens						
Hens and pullets of laying age Dec. 1	Thou. hd.	2,750	1944	1,166	1965	1925
Egg production total for year	Mil. eggs	496	1987	142	1924	1924
Turkeys						
Raised	Thou. hd.	4,061	1973	215	1935	1929
Honey						
Production	Thou. lbs.	4,368	1963	848	1946	1913
Mink						
Pelts produced	Thousand	545.4	1982	283.0	1973	1969

1/ Cows and heifers two years old and over prior to 1970, cows that have calved starting in 1970. 2/ January 1 estimates discontinued in 1969. December 1 estimates started 1969.

UTAH AGRICULTURAL STATISTICS 1989

Utah Crop Production Index (1977 = 100).

Year	Commodity				
	Small Grain	Hay	Fruit	Other Crops	Total Crops
	Percent				
1978...........	156	101	73	112	109
1979...........	156	110	108	135	121
1980...........	180	113	100	132	125
1981...........	179	120	106	130	129
1982...........	192	116	76	134	127
1983...........	169	112	130	116	122
1984...........	170	117	92	129	125
1985...........	177	113	112	124	124
1986...........	186	116	88	112	123
1987...........	181	122	138	120	131
1988...........	144	116	77	111	116

NUMBER OF FARMS

This country has seen a dramatic trend downward in the number of farms. The current count is about one-third of the number estimated in the early 1900's. Land in farms has also been on the decline, but to a lesser extent than number of farms; while the average size of farms has doubled since 1950.

Farm number statistics are based on the official definition of a farm, which is also used by the Census of Agriculture. This definition of $1,000 or more of sales has been used since 1975. The data are collected each year as a part of the June Agricultural Survey to set State and National estimates of farm numbers.

The number of farms in the United States in 1988 was estimated at 2.16 million, down 1 percent from the 2.18 million in 1987. Total land in farms for 1988 was 999 million acres, down fractionally from 1987. Since the number of farms has declined at a faster rate than land in farms, the average size of farms has increased from 461 acres in 1987 to 463 acres in 1988.

Utah has not followed the recent U.S. trend to larger farms. The trend to larger units in the late 70's until 1982 was tempered by the number of farmers continuing to operate smaller units while employed off-farm. Farm numbers remained stable, at 14,000, from 1982 to 1984 when several years of weather problems, low commodity prices, and falling land values caused a small decline to 13,900 farms in 1985. Farm numbers declined further to 13,700 in 1986 and to 13,300 in 1988. Total land in farms has fallen 9 percent since 1980. The average size of farms decreased steadily from 1,000 acres in 1975, 832 acres in 1986, and to 831 acres in 1987. In 1988 the average size farm of 850 acres indicates a reversal of this trend.

Number of Farms and Land in Farms, Selected Years 1/.

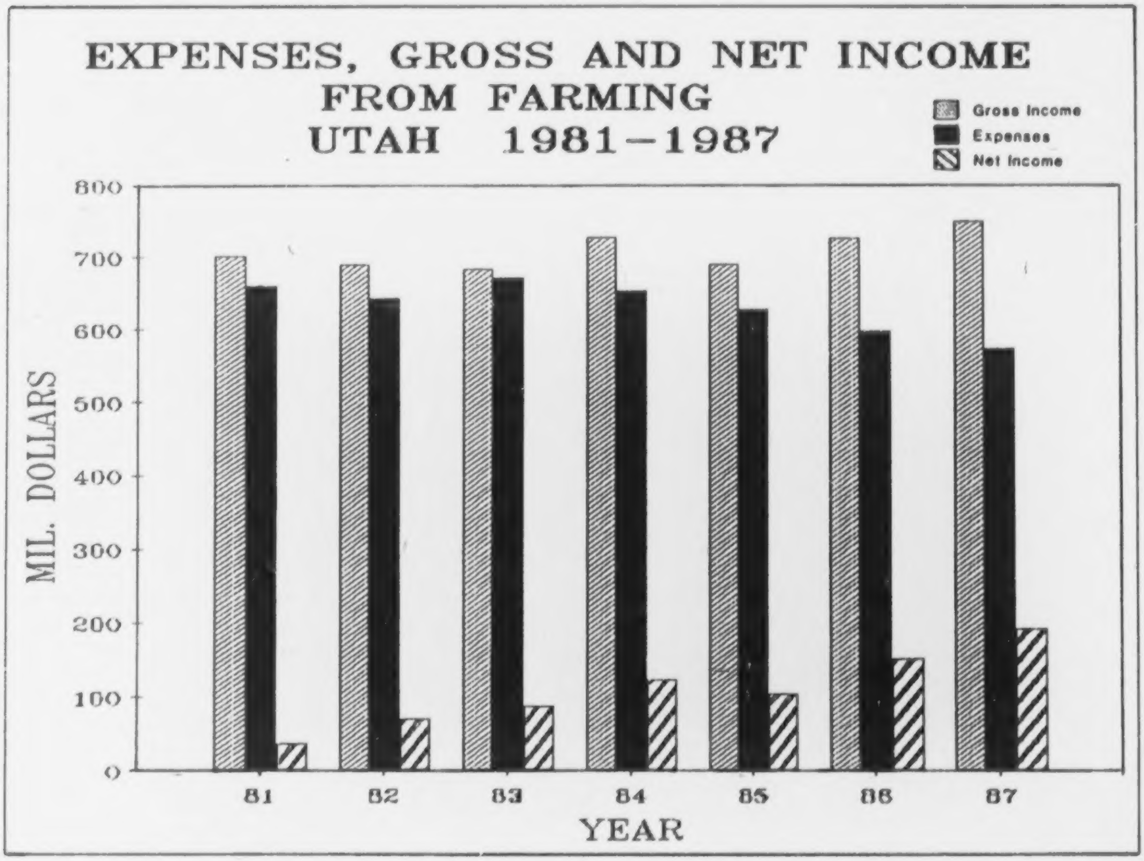
Year	UTAH			UNITED STATES		
	Farms	Land in Farms		Farms	Land in Farms	
		Average	Total		Average	Total
	Number	Acres	1,000 Acres	1,000	Acres	1,000,000 Acres
1850........	926	51	47	1,449	203	294
1860........	3,635	25	90	2,044	199	407
1880........	9,452	69	656	4,009	134	536
1900........	19,387	212	4,117	5,737	146	839
1920........	25,662	197	5,050	6,448	148	956
1930........	27,159	207	5,613	6,289	157	987
1940........	28,500	354	10,100	6,097	174	1,061
1950........	25,800	465	12,000	5,382	215	1,159
1960........	19,000	716	13,600	3,963	297	1,176
1965........	16,500	818	13,500	3,356	340	1,140
1970........	14,100	936	13,200	2,949	374	1,102
1975 2/.....	12,600	1,000	12,600	2,521	420	1,059
1977........	12,800	984	12,600	2,456	427	1,048
1978........	12,900	977	12,600	2,436	429	1,045
1979........	13,200	939	12,400	2,432	428	1,042
1980........	13,500	919	12,400	2,433	427	1,039
1981........	13,800	884	12,200	2,434	425	1,034
1982........	14,000	864	12,100	2,401	428	1,028
1983........	14,000	857	12,000	2,370	432	1,024
1984........	14,000	843	11,800	2,328	438	1,019
1985........	13,900	835	11,600	2,275	446	1,014
1986........	13,700	832	11,400	2,212	456	1,008
1987........	13,600	831	11,300	2,176	461	1,003
1988 3/.....	13,300	850	11,300	2,159	463	999

1/ 1850-1931 from U.S. Census of Agriculture--1940-88 are USDA estimates.
2/ Starting in 1975, the figures are based on the "new definition" which is a place with annual sales of agricultural products of $1,000 or more. Prior to this definition "a farm" included places of 10 or more acres that had annual sales of agricultural products of $50 or more and places of less than 10 acres that had annual sales of $250 or more. 3/ Preliminary.

FARM INCOME

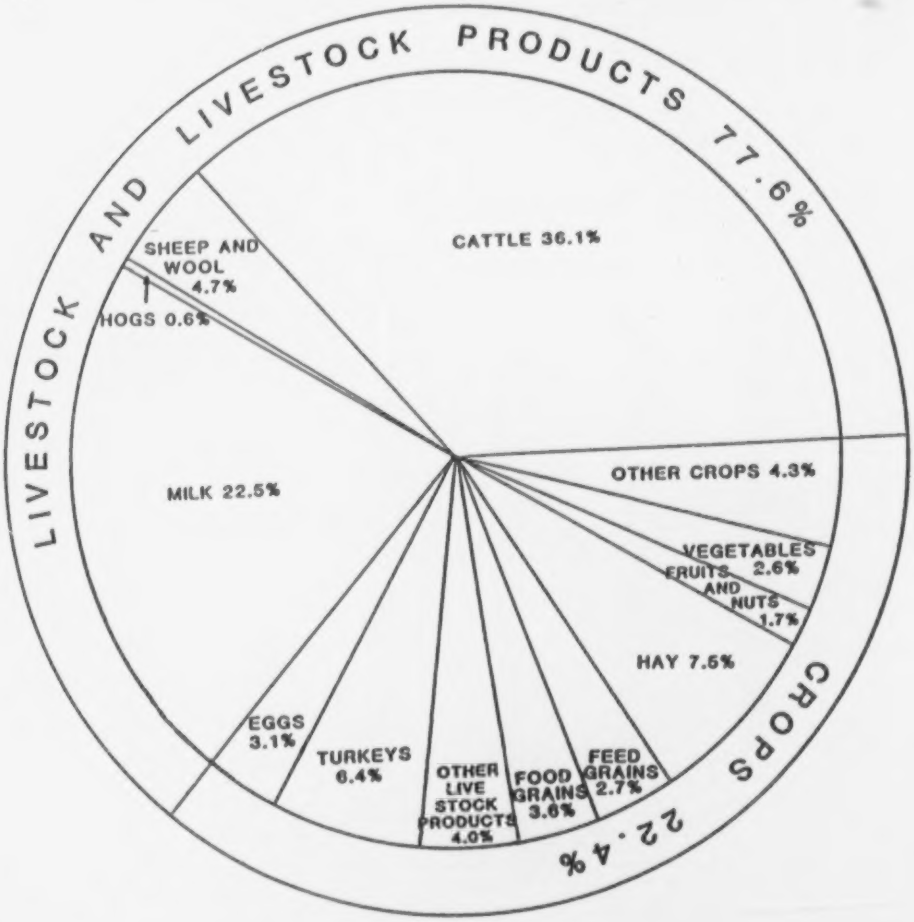
Cash receipts from the marketing of Utah farm commodities totaled a record high $619 million during 1988, according to preliminary data released by USDA's Economic Research Service. This was 4 percent above the 1987 record high. Cash receipts from livestock, of $456 million, were down 1.4 percent from the 1987 high. Cash receipts from crops, at $149 million, were up 12 percent from 1987.

Utah's gross farm income during 1987 was $751.1 million, 3 percent above 1986 and 3 percent above the 1984 high. Net farm income of $176.2 million compared with $128.7 million in 1986. Total production expenses during 1987 were $574.9 million, 4 percent below those of 1986.



The graph below displays the predominance of livestock in Utah's agricultural economy. Livestock accounted for 77.6 percent of farm cash receipts in 1987--up from 76.8 percent in 1986. Cattle was the single largest contributing commodity, producing 36.1 percent of the cash receipts. Milk was second, with 20.9 percent of the receipts; followed by turkeys, with 6.4 percent. Hay remained the largest cash producing crop and was the third highest contributing commodity overall.

UTAH CASH RECEIPTS BY COMMODITIES, 1987



Cash Receipts by Commodities, Utah, 1985-88.

Commodity	1985		1986		1987		1/1988	
	1,000 Dollars	Percent	1,000 Dollars	Percent	1,000 Dollars	Percent	1,000 Dollars	Percent
ALL COMMODITIES.........	554,891	100.0	575,805	100.0	596,083	100.0	605,225	100.0
LIVESTOCK PRODUCTS......	412,923	74.4	441,980	76.8	462,471	77.6	456,000	75.3
Meat Animals............	182,584	32.9	204,346	35.5	242,327	40.7		
Cattle/Calves..........	155,193	28.0	177,954	30.9	214,954	36.1		
Sheep/Lambs...........	24,550	4.4	23,400	4.1	23,811	4.0		
Hogs..................	2,841	.5	2,992	.5	3,562	.6		
Dairy Products.........	137,000	24.7	137,220	23.8	134,318	22.5		
Milk, Wholesale.......	128,400	23.1	128,620	22.3	124,355	20.9		
Milk, Retail..........	8,600	1.5	8,600	1.5	9,963	1.7		
Poultry/Eggs...........	64,335	11.6	68,772	11.9	56,896	9.5		
Turkeys...............	46,433	8.4	52,328	9.1	37,922	6.4		
Eggs..................	17,417	3.1	15,995	2.8	18,600	3.1		
Other Poultry.........	85	*	105	*	145	*		
Misc. Livestock........	29,004	5.2	31,642	5.5	28,930	4.9		
Wool..................	2,924	.5	3,081	.5	4,018	.7		
All Other Livestock...	26,080	4.7	27,600	4.8	24,000	4.0		
CROPS...................	141,968	25.6	133,825	23.2	133,612	22.4	149,225	24.7
Food Grains............	26,440	4.8	22,267	3.9	21,186	3.6		
Wheat.................	26,440	4.8	22,267	3.9	21,186	3.6		
Feed Crops.............	61,941	11.2	59,005	10.2	60,824	10.2		
Hay...................	42,343	7.6	42,342	7.4	44,566	7.5		
Barley................	14,930	2.7	12,980	2.3	12,302	2.1		
Corn..................	4,144	.7	3,115	.5	3,353	.6		
Vegetables.............	15,167	2.7	12,626	2.2	15,682	2.6		
Potatoes..............	7,295	1.3	6,580	1.1	6,814	1.1		
Onions................	3,918	.7	3,854	.7	5,966	1.0		
Misc. Vegetables......	1,200	.2	1,000	.2	1,000	.2		
Fruits, Nuts...........	16,179	2.9	13,304	2.3	10,322	1.7		
Apples................	6,475	1.2	4,868	.8	4,437	.7		
Cherries..............	6,456	1.2	5,042	.9	2,660	.4		
Peaches...............	1,785	.3	1,859	.3	1,520	.3		
Other Berries.........	250	*	350	*	390	.1		
Misc. Fruits and Nuts.	140	*	135	*	125	*		
All Other Crops........	22,241	4.0	26,623	4.6	25,598	4.3		
Other Seeds...........	1,600	.3	4,000	.7	3,000	.5		
Other Field Crops.....	450	*	665	.1	640	.1		
Other Ornamentals.....	14,500	2.6	16,000	2.8	16,000	2.7		

1/ Preliminary.

Source: State Income and Balance Sheet Statistics, Economic Research Service, USDA. Note: Data for some items are confidential and are not listed. Also, data for minor commodities are not shown separately. Both classes of items are included in group totals.

*Less than 0.05 percent. Percents may not be accurate to 0.1 in last digit because of method of machine computation.

Commodity groupings may not add because individual commodities with less than $1,000,000 receipts are not published separately or included in "other".

UTAH AGRICULTURAL STATISTICS 1989

Cash Receipts, Gross and Net Income from Farming, Utah, 1981-88 1/.

Item	1981	1982	1983	1984	1985	1986	1987	1988
	Mil. $	Mil. $	Mil. $	Mil. $	Mil. $	Mil. $	Mil. $	Mil. $
GROSS FARM INCOME 2/.........	702.2	690.4	685.0	728.1	690.4	727.4	751.1	
Cash Income.................	554.7	553.9	598.0	621.7	586.0	617.8	647.6	
Marketings Crops & Lvstk	542.0	538.8	574.5	587.8	554.9	575.8	596.1	619.2
Government Payments......	7.8	9.2	18.6	28.0	23.6	36.0	44.5	
Other Farm Income........	4.8	5.9	5.0	6.0	7.5	6.0	7.0	
Noncash Income 3/..........	122.3	128.8	124.2	127.5	116.0	115.6	101.9	
Value of Inventory Adj. ...	25.3	7.7	-37.3	-21.2	-11.6	-6.0	1.7	
TOTAL PRODUCTION EXPENSES 2/.	661.3	644.7	673.0	654.9	629.0	598.7	574.9	
NET FARM INCOME 4/...........	40.9	45.7	11.9	73.2	61.3	128.7	176.2	
Cash Income 5/.............	554.7	553.9	598.0	621.7	586.0	617.8	647.6	
Cash Expenses 5/...........	515.9	481.9	509.5	496.9	480.3	464.9	453.5	
NET CASH INCOME..............	38.7	72.0	88.5	124.9	105.7	152.9	194.1	

1/ Source: Data for 1981-87 from "Economic Indicators of the Farm Sector: State Financial Summary, 1987", Economic Research Service, USDA--1988 data preliminary from "Economic Indicators of the Farm Sector. 2/ Includes operator households. 3/ Includes value of home consumption and rental value of operators' and hired labors' dwellings. 4/ Gross farm income (including value of inventory adjustment) less total production expenses. 5/ Excludes operator households.

Farm Operating Expenses, Utah, 1981-87.

Item	1981	1982	1983	1984	1985	1986	1987
	Mil. $	Mil. $	Mil. $	Mil. $	Mil. $	Mil. $	Mil. $
Feed..............................	140.9	109.1	129.2	113.8	106.4	97.5	97.8
Livestock.........................	31.4	29.6	21.2	32.9	28.2	37.5	42.1
Seed..............................	7.6	6.4	6.1	7.0	6.8	6.1	6.1
Fertilizer and Lime...............	13.3	10.3	9.9	8.7	8.6	6.4	5.9
Pesticides........................	5.6	5.3	5.1	5.9	6.2	5.6	5.7
Fuel and Oil......................	40.8	35.7	33.9	32.3	29.8	21.7	20.1
Electricity.......................	10.8	12.5	13.1	13.3	13.2	11.9	14.7
Repair and Maintenance............	42.7	37.1	37.5	36.7	38.3	39.1	38.5
Other Miscellaneous 1/............	62.4	79.0	96.3	91.8	88.7	91.0	82.1
Interest--Real Estate.............	48.6	54.7	58.8	59.9	57.0	52.7	44.3
Interest--Nonreal Estate..........	52.2	55.2	50.5	47.4	46.6	42.2	38.1
Contract and Hired Labor Expenses...	41.3	48.1	46.4	46.2	46.6	46.9	51.1
Net Rent to Nonoperator Landlords...	10.6	4.4	6.3	7.6	6.4	7.8	8.4
Capital Consumption...............	130.0	135.4	136.4	131.0	124.0	110.5	99.1
Property Taxes....................	23.3	21.9	22.2	20.5	22.3	21.9	20.8
TOTAL PRODUCTION EXPENSES 2/.........	661.3	664.7	673.0	654.9	629.0	598.7	574.9

1/ Includes machine hire and customwork expenses; marketing, storage, and transportation expenses; and miscellaneous expenses. Definitions and data sources for 1978 and later are not directly compatible with those of earlier years. 2/ Includes operator households.

Utah Farm Balance Sheet (Excluding Operator Households), December 31, 1983-87 1/.

Item	1983	1984	1985	1986	1987 2/
			Million Dollars		
Assets					
Total Farm Assets	7,394.6	6,654.9	6,111.1	5,752.3	5,500.0
Real Estate 3/	6,235.0	5,523.1	5,052.9	4,723.4	4,417.0
Livestock and Poultry 4/	385.8	356.9	352.2	360.6	466.6
Machinery and Motor Vehicles 5/	485.3	475.8	437.9	406.4	378.1
Crops 6/	124.5	115.5	114.1	96.0	100.7
Financial Assets	164.0	183.6	154.0	165.9	137.6
Claims					
Total Farm Debt	1,002.0	1,011.4	952.9	834.7	741.1
Real Estate Debt 7/	595.0	588.9	549.0	487.6	438.5
Nonreal Estate Debt 8/	407.0	422.4	403.9	347.2	302.5
Equity	6,392.5	5,643.6	5,158.3	4,917.5	4,758.9
Ratios			Ratio		
Equity/Assets	86.4	84.8	84.4	85.5	86.5
Debt/Equity	15.7	17.9	18.5	17.0	15.6
Debt/Assets, Total	13.6	15.2	15.6	14.5	13.5
Debt/Assets, Real Estate	9.5	10.7	10.9	10.3	9.9
Debt/Assets, Nonreal Estate	35.1	37.3	38.2	33.7	27.9
Returns to Operator/Total Debt 9/	-3.9	2.0	1.2	8.4	16.5

1/ Data are for farms with sales of $1,000 or more annually. 2/ Preliminary. 3/ Excludes value of operator dwellings. 4/ Excludes horses, mules, and broilers. 5/ Includes only farm share value for trucks and autos. 6/ All non-CCC crops held on farms plus the value above loan rate for crops held under CCC. 7/ Excludes debt on operator dwellings, but includes CCC storage and drying facility loans. 8/ Excludes debt for nonfarm purposes. 9/ Total debt in this ratio is an average for the year.

Source: "Economic Indicators of the Farm Sector: State Financial Summary", Economic Research Service, USDA.

FIELD CROPS

Statewide, moisture was normal to slightly above in the early months of the growing season. However, the northern district--where a large part of the grains are grown--was below normal from June until the end of harvest. Early spring seeded grains did well for the most part, with enough moisture to get the crop to harvest. Late seeded grains were hurt by the high temperatures in July and August. Crops grown on nonirrigated lands suffered the most. Irrigated crops did better, but some irrigation water supplies were inadequate. The northern counties were very hot and dry during August and September, going into the winter months with low soil moisture reserves.

Hay remains Utah's largest cash crop. A large part of the Utah crop is fed to Utah livestock herds, but a sizeable market has developed in neighboring States and overseas for baled and pelleted alfalfa. Alfalfa hay was up 15,000 acres to 480,000 acres. Yields averaged 3.9 tons per acre, down from the record high of 4.1 tons the previous year. Total production of 1.9 million tons was 2 percent below 1987. Other hay harvested was down 20,000 acres to 140,000 acres. Yield of 1.9 tons per acre was .2 ton below 1987. Production was down 21 percent. All hay brought an average price of $74.50 per ton. Total value of all hay was $159.3 million, up 6 percent from 1987.

Small Grains: Planted acreage for wheat was down 13 percent, barley was down 9 percent, but oat planted acreage was up 14 percent. Yields were below 1988 record yields for all small grain crops, except oats harvested for grain. Winter wheat acreage, at 160,000, was 20,000 acres below 1987 and yields were down 7.0 bushels per acre. Production fell 24 percent to 5.6 million bushels. Value of production rose 11 percent to $20.4 million. Spring wheat harvested acres were down 7,000 acres from 1987 to 22,000. Yields were down 3 bushels per acre and production was down 465,000 bushels to 1.2 million. At an average price of $3.50 per bushel, the total value of the crop, at $4.16 million, was down 1 percent from 1987. Barley acreage harvested, at 125,000, was 17,000 below 1987. Production of 9.6 million bushels was down 18 percent from 1987. Barley prices averaged $2.70 per bushel to give a total value of $26.0 million--up 20 percent from 1987. Oat acreage of 32,000 was up 4,000 acres from 1987, but acreage harvested for grain remained the same at 14,000. Yield of 72 bushels per acre was up 3.0 bushels per acre from 1987--equal to the record high yield of 1986. Average price, at $2.60 per bushel, placed a value of production at $2.6 million, up 60 percent from 1987.

Corn acres planted for all purposes remained at 70,000, but acres harvested for grain increased 2,000 acres to 22,000. Yields were down 16.0 bushels per acre, with total production of 2.7 million bushels--a decrease of 3 percent from 1987. The average bushel price, at $3.30, set the value of production at $9.0 million--up 34 percent from last year. Total corn silage production from 47,000 acres was 940,000 tons compared with 987,000 tons in 1987. The value, at $21.6 million, compared with $21.7 million in 1987. The average price of $23.00 per ton was up $1.00 per ton.

UTAH USUAL PLANTING AND HARVESTING DATES, BY CROP AND PRINCIPAL PRODUCING AREAS

Crop	1988 Harvested Acreage (000)	Usual Planting Dates	Usual Harvesting Dates			Principal Producing Areas and Counties
			Begins	Most Active	Ends	
Barley:						
Spring 1/	125	Mar 20 - Apr 25	Jul 20	Jul 25 - Aug 15	Sep 1	Statewide
Beans:						
Dry 1/	4.5	May 10 - Jun 1	Sep 1	Sep 10 - Sep 30	Oct 20	San Juan
Corn:						
Grain 1/	22	Apr 25 - Jun 5	Sep 10	Sep 25 - Oct 20	Dec 10	Utah, Box Elder
Silage 1/	47	May 1 - Jun 5	Sep 5	Sep 10 - Sep 25	Oct 10	Statewide
Hay:						
Alfalfa 1/	480		Jun 1		Oct 25	Statewide
Other 1/	140		Jul 10		Aug 25	Statewide
Oats:						
Spring 1/	14	Mar 20 - May 15	Jul 20	Jul 25 - Aug 10	Aug 25	Statewide
Onions, Summer Storage 2/	1.8	Mar 1 - Apr 30	Sep 20	Sep 25 - Oct 20	Oct 31	Davis, Weber, Salt Lake, Utah, Box Elder
Potatoes:						
Fall 3/	6.6	Apr 20 - Jun 15	Jul 15	Sep 15 - Oct 25	Nov 5	Statewide
Wheat:						Millard, San Juan Box Elder, Cache Salt Lake, Utah, Juab
Winter 1	155	Aug 25 - Oct 20	Jul 5	Jul 15 - Aug 5	Aug 20	
Spring 1/	22	Mar 20 - May 1	Aug 1	Aug 5 - Aug 25	Sep 1	

1/ USDA Agriculture Handbook 628, Apr. 1984. 2/ USDA Agriculture Handbook 507, Feb. 1977, 3/ USDA Handbook 460, Dec. 1973.

Corn Planted and Harvested for Silage: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Planted for All Purposes	Acres Harvested	Yield Per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres	1,000 Acres	Tons	1,000 Tons	Dollars per Ton	1,000 Dollars
1940............	29	10	9.4	94	--	--
1950............	31	21	11.0	231	7.50	1,732
1960............	49	41	14.5	594	8.00	4,752
1970............	63	49	18.0	882	9.80	8,644
1980............	100	79	19.0	1,501	21.10	31,671
1982	90	69	20.0	1,380	21.50	29,670
1983............	80	61	20.0	1,220	23.00	28,060
1984............	82	62	20.5	1,271	23.00	29,233
1985............	80	61	20.0	1,220	21.50	26,230
1986............	72	52	19.5	1,014	20.00	20,280
1987............	70	47	21.0	987	22.00	21,714
1988............	70	47	20.0	940	23.00	21,620

Corn Planted and Harvested for Grain: Acreage Harvested, Yield, Production, Sales, and Value, Utah, Selected Years.

Year	Planted for All Purposes	Acres Harvested	Yield Per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres	1,000 Acres	Bushel	1,000 Bushels	Dollars per Bu.	1,000 Dollars
1940............	29	10	29.0	290	--	--
1950............	31	5	50.0	250	--	--
1960............	49	3	64.0	192	1.50	288
1970............	63	10	90.0	900	1.40	1,260
1980............	100	15	100.0	1,500	3.75	5,625
1982............	90	17	118.0	2,006	3.10	6,219
1983............	80	14	110.0	1,540	3.71	5,713
1984............	82	16	118.0	1,888	3.15	5,947
1985............	80	16	115.0	1,840	2.80	5,152
1986............	72	18	125.0	2,250	2.16	4,860
1987............	70	20	140.0	2,800	2.40	6,720
1988............	70	22	124.0	2,728	3.20	8,730

Winter Wheat: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	1,000 Acres	1,000 Acres	Bushel	1,000 Bushel	Dollars per Bu.	1,000 Dollars
1940............	191	180	19.0	3,420	.63	2,155
1950............	344	326	16.0	5,216	1.86	9,702
1960............	193	181	18.5	3,348	1.71	5,725
1970............	200	191	27.0	5,157	1.41	7,271
1980............	260	242	31.0	7,502	3.95	29,633
1982............	240	233	33.0	7,689	3.30	25,374
1983............	220	190	35.0	6,650	3.28	21,812
1984............	230	195	33.0	6,435	3.35	21,557
1985............	230	220	32.0	7,040	3.00	21,120
1986............	235	225	36.0	8,100	2.42	19,602
1987............	180	170	43.0	7,310	2.50	18,275
1988............	160	155	36.0	5,580	3.80	21,204

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

Spring Wheat: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	1,000 Acres	1,000 Acres	Bushel	1,000 Bushel	Dollars per Bu.	1,000 Dollars
1940............	68	66	31.0	2,046	.65	1,330
1950............	84	82	32.0	2,624	1.86	4,881
1960............	52	48	40.5	1,944	1.61	3,130
1970............	23	21	44.0	924	1.36	1,257
1980............	32	30	48.0	1,440	3.80	5,472
1982............	35	33	48.0	1,584	3.40	5,386
1983............	30	27	51.0	1,377	3.43	4,723
1984............	39	36	45.0	1,620	3.52	5,702
1985............	44	40	40.0	1,600	3.05	4,880
1986............	35	33	50.0	1,650	2.48	4,092
1987............	32	29	57.0	1,653	2.55	4,215
1988............	24	22	54.0	1,188	3.65	4,336

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

All Wheat: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	1,000 Acres	1,000 Acres	Bushel	1,000 Bushel	Dollars per Bu.	1,000 Dollars
1940............	259	246	22.2	5,466	.64	3,485
1950............	428	408	19.2	7,840	1.86	14,583
1960............	245	229	23.1	5,292	1.67	8,855
1970............	223	212	28.7	6,081	1.40	8,528
1980............	292	272	32.9	8,942	3.93	35,105
1982............	275	266	34.9	9,273	3.32	30,760
1983............	250	217	37.0	8,027	3.31	26,535
1984............	269	231	34.9	8,055	3.38	27,259
1985............	274	260	33.2	8,640	3.01	26,000
1986............	270	258	37.8	9,750	2.43	23,694
1987............	212	199	45.0	8,963	2.51	22,490
1988............	184	177	38.2	6,768	3.77	25,515

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

Barley: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	1,000 Acres	1,000 Acres	Bushel	1,000 Bushel	Dollars per Bu.	1,000 Dollars
1940............	109	107	41.0	4,387	.46	2,018
1950............	146	141	44.0	6,204	1.16	7,197
1960............	160	147	43.5	6,394	1.00	6,394
1970............	148	141	58.5	8,249	1.07	8,826
1980............	162	148	79.0	11,692	2.88	31,116
1982............	171	161	80.0	12,880	2.31	29,753
1983............	160	154	74.0	11,396	2.80	31,909
1984............	170	159	73.0	11,607	2.50	29,018
1985............	172	159	74.0	11,766	2.28	26,826
1986............	165	152	76.0	11,552	1.85	21,371
1987............	152	142	83.0	11,786	1.84	21,686
1988............	139	125	77.0	9,625	2.65	25,506

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustments for outstanding loans and government purchases.

Oats: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price 1/	Value of Production
	Planted	Harvested				
	1,000 Acres	1,000 Acres	Bushel	1,000 Bushel	Dollars per Bu.	1,000 Dollars
1940............	46	39	39.0	1,521	.34	517
1950............	56	51	45.0	2,295	.89	2,043
1960............	29	23	46.0	1,058	.83	878
1970............	24	17	60.0	1,020	.76	775
1980............	26	15	61.0	915	1.95	1,784
1982............	28	15	68.0	1,020	1.85	1,887
1983............	26	14	68.0	952	1.97	1,875
1984............	26	13	67.0	871	1.92	1,672
1985............	26	13	71.0	923	1.65	1,523
1986............	27	12	72.0	864	1.55	1,339
1987............	28	14	69.0	966	1.70	1,642
1988............	32	14	72.0	1,008	2.60	2,621

1/ Prior to 1979 includes adjustment for outstanding loans and government purchases. Starting 1979 excludes adjustment for outstanding loans and government purchases.

Dry Beans: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price	Value of Production
	Planted	Harvested				
	1,000 Acres	1,000 Acres	Pounds	1,000 Cwt.	Dollars per Cwt.	1,000 Dollars
1940............	9	9	500	40	3.55	142
1950............	12	11	280	27	6.40	173
1960............	8	6	300	18	7.10	128
1970............	20	20	430	86	7.90	679
1980............	12	11	380	42	28.00	1,176
1982............	11	10	460	46	11.70	538
1983............	7	6.9	600	41	22.00	902
1984............	9.5	9.3	580	54	16.50	891
1985............	8.5	8.4	480	40	18.00	720
1986............	9.0	8.5	480	41	15.00	615
1987............	6.8	6.7	700	47	15.30	719
1988............	4.5	4.5	580	26	31.60	822

Potatoes: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres		Yield per Acre	Production	Marketing Year Average Price	Value of Production
	Planted	Harvested				
	1,000 Acres	1,000 Acres	Cwt.	1,000 Cwt.	Dollars per Cwt.	1,000 Dollars
1940..............	13.0	12.9	102	1,316	.70	921
1950..............	13.5	13.0	147	1,911	1.75	3,344
1960..............	8.3	7.9	170	1,343	2.28	3,062
1970..............	6.0	5.9	170	1,003	2.38	2,387
1980..............	5.3	5.2	225	1,170	5.15	6,026
1982..............	6.4	6.4	225	1,440	4.00	5,760
1983..............	6.0	5.9	230	1,357	4.70	6,378
1984..............	6.5	6.4	270	1,728	5.05	8,726
1985..............	6.6	6.5	255	1,658	4.50	7,461
1986..............	6.4	6.4	275	1,760	4.45	7,832
1987..............	6.6	6.6	240	1,584	4.50	7,128
1988..............	6.8	6.6	245	1,617	5.50	8,894

Potatoes: Production, Farm Use, Sales, and Value, Utah, Selected Years.

Year	Production	Total Used for Seed 1/	Farm Disposition			Price per Cwt.	Value of Sales
			Used on Farms Where Grown		Sold		
			For Seed, Feed, and Household Use	Shrinkage, and Loss			
	1,000 Cwt.	1,000 Cwt.	1,000 Cwt.	1,000 Cwt.	1,000 Cwt.	Dollars	1,000 Dollars
1940..........	1,316	--	--	--	915	.70	640
1950..........	1,911	--	--	--	1,540	1.75	2,695
1960..........	1,343	118	119	117	1,107	2.28	2,524
1970..........	1,003	81	49	90	864	2.38	2,056
1980..........	1,170	149	31	119	1,020	5.15	5,253
1982..........	1,440	138	52	140	1,248	4.00	4,992
1983..........	1,357	156	28	85	1,244	4.70	5,847
1984..........	1,728	158	17	104	1,607	5.05	8,115
1985..........	1,658	154	71	171	1,416	4.50	6,372
1986..........	1,760	158	14	215	1,531	4.45	6,813
1987 2/.......	1,584	156	22	111	1,451	4.50	6,530
1988 3/.......	1,617						

1/ Includes seed purchased and seed used on farms where grown. 2/ Preliminary. 3/ Available September 27, 1989.

All Hay: Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acres Harvested	Yield per Acre	Production	Marketing Year Average Price	Value of Production
	1,000 Acres	Tons	1,000 Tons	Dollars per Ton	1,000 Dollars
1940	553	1.92	1,059	10.50	11,120
1950	534	1.91	1,020	22.20	22,644
1960	566	2.26	1,281	26.40	33,818
1970	563	2.91	1,638	25.00	40,950
1980	605	3.43	2,076	70.00	144,060
1982	608	3.52	2,142	66.00	141,372
1983	595	3.45	2,055	77.00	158,235
1984	610	3.54	2,160	70.50	152,280
1985	605	3.44	2,084	67.00	139,628
1986	625	3.42	2,135	62.50	133,438
1987	625	3.59	2,243	67.00	150,281
1988	620	3.45	2,138	76.50	163,557

Hay Crops: Acreage, Yield, Production, Utah, Selected Years.

Year	Acres Harvested	Yield per Acre	Production	Year	Acres Harvested	Yield per Acre	Production
	1,000 Acres	Tons	1,000 Tons		1,000 Acres	Tons	1,000 Tons
		Alfalfa Hay				All Other Hay 1/	
1940	431	2.10	905	1940	122	1.26	154
1950	361	2.20	794	1950	173	1.31	226
1960	439	2.55	1,119	1960	127	1.28	162
1970	441	3.25	1,433	1970	122	1.68	205
1980	470	3.90	1,833	1980	135	1.80	243
1982	470	4.00	1,880	1982	138	1.90	262
1983	455	3.90	1,775	1983	140	2.00	280
1984	470	4.00	1,880	1984	140	2.00	280
1985	460	3.90	1,794	1985	145	2.00	290
1986	470	3.90	1,833	1986	155	1.95	302
1987	465	4.10	1,907	1987	160	2.10	336
1988	480	3.90	1,872	1988	140	1.90	266

1/ Includes clover-timothy hay, grain hay, other tame hay and wild hay for which separate estimates were discontinued in 1971.

UTAH AGRICULTURAL STATISTICS 1989

Grain Stocks - Wheat, Barley, Oats, and Corn - Stored Off Farm 1/,
by Quarters; Utah, Selected Years.

Year Beginning	Sep. 1	Oct. 1	Dec. 1	Following Year				
				Jan. 1	Mar. 1	Apr. 1	Jun. 1	Jul. 1
				1,000 Bushels				
WHEAT								
1960.......	--	7,116	--	5,867	--	4,369	--	2,105
1970.......	--	5,424	--	5,323	--	4,252	--	2,264
1980.......	--	7,527	--	5,898	--	4,748	3,881	--
1984.......	--	8,126	--	7,065	--	5,512	4,893	--
1985.......	--	8,541	--	6,956	--	4,446	3,215	--
1986.......	7,498	--	9,440	--	9,800	--	5,906	--
1987.......	9,242	--	8,888	--	8,386	--	5,569	--
1988.......	5,995	--	6,373	--	4,967	--	2/	
BARLEY								
1960.......	--	1,653	--	1,087	--	848	--	477
1970.......	--	3,990	--	3,110	--	1,364	--	755
1980.......	--	5,563	--	3,356	--	1,585	856	--
1984.......	--	6,217	--	4,166	--	2,076	1,140	--
1985.......	--	4,696	--	3,355	--	3/	1,120	--
1986.......	NA	--	NA	--	NA	--	1,320	--
1987.......	NA	--	NA	--	NA	--	1,210	--
1988.......	3,117	--	3,376	--	2,086	--	2/	
OATS								
1984.......	--	156	--	130	--	198	119	--
1985.......	--	164	--	445	--	4/	47	--
1986.......	NA	--	NA	--	NA	--	114	--
1987.......	NA	--	NA	--	NA	--	371	--
1988.......	NA	--	NA	--	NA	--	2/	

Year Beginning	Dec. 1	Following Year						
		Jan. 1	Mar. 1	Apr. 1	Jun. 1	Jul. 1	Sep. 1	Oct. 1
		1,000 Bushels						
CORN								
1984.......	--	533	--	384	267	--	--	192
1985.......	--	445	--	275	198	--	--	--
1986.......	5,254	--	5,224	--	6,040	--	6,167	--
1987.......	8,137	--	6,991	--	7,190	--	2,619	--
1988.......	6,640	--	6,415	--	2/			

NA = Not Available. 1/ Includes stocks at mills, elevators, warehouses, terminals, processors, and CCC owned grain at bin sites. Utah on farm estimates were discontinued starting April 1, 1986, but are included in the National total. 2/ Estimates available June 30, 1989. 3/ All quarterly estimates except June 1 discontinued starting April 1, 1986. However, starting June 1, 1988, quarterly estimates for September 1, December 1, and March 1 were made. 4/ Only June 1 stocks estimates available after April 1, 1986.

FRUITS

The 1988 Utah fruit crop was below the 1987 level due largely to smaller apple, pear, and tart cherry crops; but all crops were at the average. A late freeze in the south cut peach and apricot crops, but good crops were reported in the northern growing areas.

Apple production, at 40.0 million pounds, was well below the 1987 State record of 68.0 million pounds set last year. Utilized production was 37.0 million pounds. Producers received an average price of 11.5 cents per pound--4.1 cents per pound above last year. The total value of utilized production, at $4.26 million, was $380,000 below the 1987 crop.

Apricots in Utah were caught with a late freeze in the southern district, but State production of 1,200 tons was up 9 percent from 1987. Utilized production of 1,000 tons was up 11 percent from 1987. Producers received $380 per ton to bring the total value to $376,000, down $2,000 from the previous year.

Peach production of 11.0 million pounds was up 5 percent from the 1987 total. Utilized production totaled 10.8 million pounds, up 1.3 million pounds from 1987. Growers received an average of 19 cents per pound, which was up 3 cents per pound from last year. The value of the crop, at $2.05 million, was $53,000 above 1987.

Pear production, at 2,000 tons, was well below the previous year's 3,600 tons, and the lowest since 1978. For the 1988 crop, growers received $384 per ton--a new record high average price. Total value of utilized production, at $768,000, was $102,000 below the 1987 value.

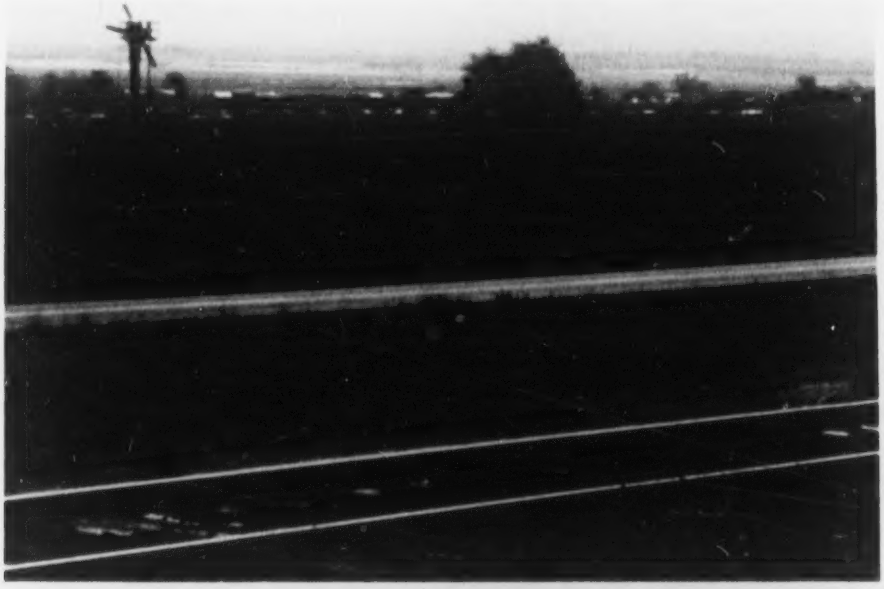
Sweet Cherry producers harvested 2,000 tons, 11 percent above 1987. The average price received by growers was $776 per ton, up $109 per ton from 1987. The value of production, at $1.5 million, was up $324,000 from 1987.

Tart cherry production totaled 11 million pounds, down 62 percent from last year's crop and the lowest since 1982. An estimated 9.6 million pounds were utilized. Producers received an average of 19 cents per pound, compared with 8.3 cents per pound for the 1987 crop. The value of the crop was $1.8 million--10 percent above the value of the 1987 record production.

UTAH USUAL BLOOMING AND HARVESTING DATES, FRUITS 1/

Fruit Crop	1988 Total Prod.	Usual Dates of Full Bloom	Usual Harvesting Dates			Principal Producing Areas and Counties
			Begins	Most Active	Ends	
	Tons					
Apricots	1,200	Apr 5 - 10	Jun 10	Jun 15-Jul 30	Aug 5	Washington, Box Elder, Weber, Davis, Utah
Sweet Cherries	2,000	Apr 15 - 24	Jun 10	Jun 15-Jul 15	Jul 20	Washington, Utah, Davis, Box Elder, Weber
Pears	2,000	Apr 25 - 30	Aug 5	Aug 10-Sep 15	Sep 23	Washington, Utah, Cache Weber, Salt Lake, Box Elder
	Mil. Lbs					
Apples	40.0	May 5	Sep 19	Sep 19-Oct 8	Nov 1	Utah, Box Elder, Davis, Cache
Tart Cherries	11.0	Apr 24	Jul 10	Jul 15-Jul 30	Aug 10	Utah, Box Elder, Weber Davis, Salt Lake
Peaches	11.0	Apr 10 - 20	Jul 25	Aug 25-Sep 15	Sep 20	Utah, Box Elder, Davis Weber, Salt Lake

1/ USDA Agriculture Handbook 186, December 1975.



Utah Fruit - Production and Value, 1972-1988.

Year	Apples	Peaches	Pears	Sweet Cherries	Tart Cherries	Apricots	Total
			Utilized Production - Tons				
1972.....	2,000	750	200	1/	650	0	3,600
1973.....	26,350	6,000	5,830	6,500	8,500	2,170	55,350
1974.....	18,500	8,000	3,200	5,000	5,800	550	41,050
1975.....	22,000	8,000	3,300	2,600	4,000	500	40,400
1976.....	20,000	8,400	3,900	5,400	8,500	1,750	47,950
1977.....	23,500	7,300	3,400	4,700	5,600	1,700	46,200
1978.....	17,500	5,500	1,700	2,400	5,650	500	33,250
1979.....	25,500	6,000	2,700	4,200	8,500	1,700	48,600
1980.....	25,000	5,500	3,000	4,100	6,450	1,500	45,550
1981.....	26,500	6,000	3,050	4,380	6,800	1,580	48,310
1982.....	27,000	1,750	2,600	2,070	4,500	160	38,080
1983.....	29,000	6,000	3,500	4,300	11,500	1,400	55,700
1984.....	22,500	6,000	3,100	3,850	6,000	680	42,130
1985.....	27,500	5,250	2,500	2,100	10,500	930	48,780
1986.....	17,000	5,250	2,200	2,160	9,250	800	36,660
1987.....	31,500	4,750	3,200	1,770	10,000	900	52,120
1988.....	18,500	5,400	2,000	1,940	4,800	1,000	33,640
			Value - $1,000				
1972.....	355	200	43	--	133	0	731
1973.....	3,531	1,512	624	2,035	2,839	315	10,856
1974.....	3,478	1,936	646	1,695	2,146	211	10,112
1975.....	2,772	2,144	485	1,079	760	193	7,433
1976.....	3,720	2,134	714	1,804	4,029	284	12,685
1977.....	4,982	1,840	816	2,167	3,203	423	13,431
1978.....	3,850	1,870	595	1,836	4,407	230	12,788
1979.....	6,528	2,040	756	2,516	7,412	816	20,068
1980.....	5,472	1,925	900	2,464	2,438	540	13,739
1981.....	5,678	2,232	1,007	2,785	5,065	379	17,146
1982.....	6,948	879	668	1,762	1,536	67	11,860
1983.....	5,784	1,800	1,036	2,808	9,254	364	21,046
1984.....	4,650	1,800	899	1,881	2,879	238	12,347
1985.....	6,650	1,785	735	1,624	4,832	353	15,979
1986.....	4,690	1,859	759	1,509	3,533	291	12,641
1987.....	4,635	1,520	870	1,181	1,654	378	10,238
1988.....	4,255	2,052	768	1,505	1,826	376	10,782

1/ The 1972 sweet cherry crop was nearly a complete failure due to spring freezes. A few sweet cherries were produced, but production was too small to warrant a quantitative estimate.

Commercial Apples 1/: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Cents Per Lb.	1,000 $
1940......	22.3	2.7	19.6	--	--	1.7	339
1950......	13.5	--	13.5	--	--	5.4	733
1960......	10.3	--	10.3	--	--	4.8	496
1970......	28.0	.5	27.5	21.3	6.2	5.7	1,570
1980......	52.0	2.0	50.0	42.0	8.0	10.9	5,472
1982......	54.0	--	54.0	43.0	11.0	12.9	6,948
1983......	58.0	--	58.0	44.0	14.0	10.0	5,784
1984......	45.0	--	45.0	33.0	12.0	10.3	4,650
1985......	57.0	2.0	55.0	44.5	10.5	12.1	6,650
1986......	34.0	--	34.0	26.5	7.5	13.8	4,690
1987......	68.0	5.0	63.0	36.0	27.0	7.4	4,635
1988 2/...	40.0	3.0	37.0			11.5	4,255

1/ Estimates through 1933 were for all apples. Since 1934 estimates are for commercial production including orchards with more than 100 trees. 2/ Preliminary, revised estimates available July 10, 1989.

Apricots: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh 1/	Processed		
	Tons	Tons	Tons	Tons	Tons	Dollars per Ton	1,000 $
1940.....	7,800	--	7,800	--	--	27.20	212
1950.....	400	--	400	--	--	180.00	72
1960.....	2,500	--	2,500	--	--	96.60	242
1970.....	1,300	--	1,300	1,300	0	135.00	176
1980.....	1,500	--	1,500	1,500	0	360.00	540
1982.....	200	40	160	160	0	420.00	67
1983.....	1,400	--	1,400	1,400	0	260.00	364
1984.....	800	120	680	680	0	350.00	238
1985.....	1,100	170	930	930	0	380.00	353
1986.....	900	100	800	800	0	364.00	291
1987.....	1,100	200	900	900	0	420.00	378
1988.....	1,200	200	1,000	1,000	0	380.00	376

1/ Small quantities processed are included in "fresh" to avoid disclosure of individual operations.

Peaches: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Cents per Lb.	1,000 $
1940........	35.4	--	35.4	--	--	1.7	590
1950........	5.4	--	5.4	--	--	8.0	431
1960........	8.6	--	8.6	--	--	6.8	587
1970........	13.0	--	13.0	13.0	0	6.4	826
1980........	11.0	--	11.0	11.0	0	17.5	1,925
1982........	3.5	--	3.5	3.5	0	25.1	879
1983........	12.0	--	12.0	12.0	0	15.0	1,800
1984........	12.0	--	12.0	12.0	0	15.0	1,800
1985........	11.0	0.5	10.5	10.5	0	17.0	1,785
1986........	10.5	--	10.5	10.5	0	17.7	1,859
1987........	10.5	1.0	9.5	9.5	0	16.0	1,520
1988........	11.0	0.2	10.8	10.8	0	19.0	2,052

Pears: Production, Use, and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	Tons	Tons	Tons	Tons	Tons	Dollars per Ton	1,000 $
1940........	4,525	--	4,525	--	--	38.00	172
1950........	875	--	875	--	--	144.00	126
1960........	4,380	200	4,180	--	--	108.00	451
1970........	4,300	--	4,300	--	--	102.00	439
1980........	3,000	--	3,000	3,000	0	300.00	900
1982........	2,800	200	2,600	2,600	0	257.00	668
1983........	3,500	--	3,500	3,500	0	296.00	1,036
1984........	3,200	100	3,100	3,100	0	290.00	899
1985........	2,500	--	2,500	2,500	0	294.00	735
1986........	2,200	--	2,200	2,200	0	345.00	759
1987........	3,600	400	3,200	3,200	0	272.00	870
1988........	2,000	--	2,000	2,000	0	384.00	768

Sweet Cherries: Production, Use and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	Tons	Tons	Tons	Tons	Tons	Dollars per Ton	1,000 $
1940........	3,100	--	3,100	--	--	80.00	248
1950........	440	--	440	--	--	282.00	124
1960........	1,200	--	1,200	--	--	407.00	488
1970........	2,300	--	2,300	2,030	270	361.00	830
1980........	4,100	--	4,100	3,500	600	601.00	2,464
1982........	2,100	30	2,070	1,920	150	851.00	1,762
1983........	4,400	100	4,300	1/	1/	653.00	2,808
1984........	4,200	350	3,850	1/	1/	489.00	1,881
1985........	2,200	100	2,100	1/	1/	773.00	1,624
1986........	2,160	--	2,160	1,300	860	699.00	1,509
1987........	1,800	30	1,770	940	830	667.00	1,181
1988........	2,000	60	1,940	1,430	510	776.00	1,505

1/ Data not published to avoid disclosure of individual operations.

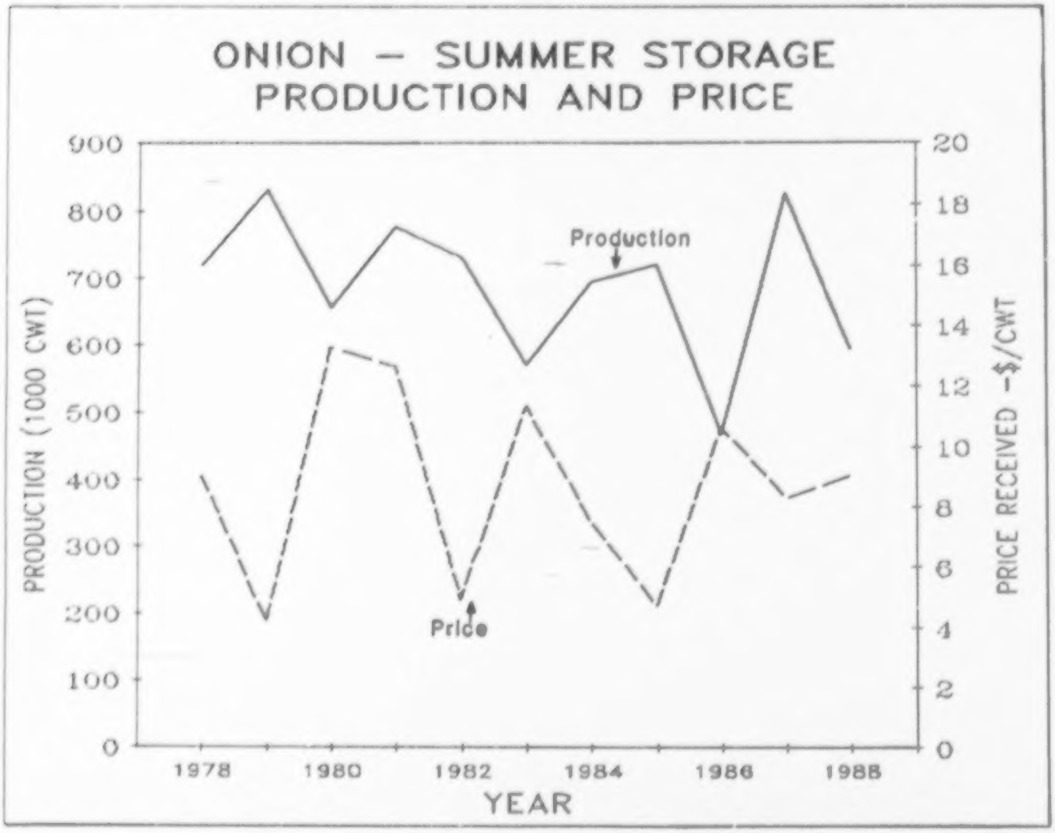
Tart Cherries: Production, Use and Value, Utah, Selected Years.

Year	Production			Utilization		Average Price	Value of Utilized Production
	Total	Not Utilized	Utilized	Fresh	Processed		
	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Million Lbs.	Cents per Lb.	1,000 $
1940........	4.6	--	4.6	--	--	2.2	101
1950........	1.6	--	1.6	--	--	8.9	142
1960........	5.6	--	5.6	--	--	6.9	389
1970........	9.8	--	9.8	.8	9.0	7.1	696
1980........	13.0	.1	12.9	.3	12.6	18.9	2,438
1982........	9.0	--	9.0	.3	8.7	17.1	1,536
1983........	24.0	1.0	23.0	.2	22.8	40.2	9,254
1984........	12.0	--	12.0	.1	11.9	24.0	2,879
1985........	21.0	--	21.0	.2	20.8	23.0	4,832
1986........	18.5	--	18.5	.6	17.9	19.1	3,533
1987........	29.0	9.0	20.0	.2	19.8	8.3	1,654
1988........	11.0	1.4	9.6	.1	9.5	19.0	1,826

VEGETABLES

Onion production in Utah for 1988 totaled 594,000 hundredweight (cwt.), down 28 percent from the 1987 crop but 27 percent above the 1986 total. Utah farmers planted 1,900 acres and harvested 1,800 acres, both 100 acres more than last year. The 1988 yield of 330 cwt. per acre was 155 cwt. below the record high yield of 1987 and 5 cwt. per acre below the 1986 yield. Growers received $9 per cwt. compared with $8.27 per cwt. a year ago, and $10.60 per cwt. in 1986. Total value of the 1988 crop was $4.6 million.

Utah growers produced 7,890 tons of vegetables for processing, on 2,400 acres. This accounted for a total value of $1.1 million, down 16 percent from the previous year.



Onions, Summer Storage (Fresh Market): Acreage, Yield, Production, and Value, Utah, Selected Years.

Year	Acreage		Yield per Acre	Production	Quantity not Sold 1/	Sales	Value of Sales	
	Planted	Harvested					Per Cwt.	Total
	Acres	Acres	Cwt.	1,000 Cwt.	1,000 Cwt.	1,000 Cwt.	Dollars	1,000 Dollars
1940...	--	1,100	200	220	38	182	.50	91
1950...	1,150	1,100	270	297	83	214	1.80	385
1960...	750	700	325	228	63	165	2.80	462
1970...	1,000	1,000	300	300	55	245	2.75	674
1980...	2,000	1,900	345	656	98	558	13.20	7,366
1982...	2,100	2,000	365	730	390	340	4.91	1,669
1983...	2,000	1,900	300	570	91	479	11.30	5,413
1984...	2,300	2,200	315	693	119	574	7.50	4,305
1985...	1,700	1,600	450	720	120	600	4.71	2,826
1986...	1,500	1,400	335	469	61	408	10.60	4,325
1987...	1,800	1,700	485	825	115	710	8.27	5,872
1988...	1,900	1,800	330	594	84	510	9.00	4,590

1/ Includes shrinkage, waste, and cullage.

Vegetables for Processing 1/: Acreage, Production, and Value, Utah, Selected Years.

Year	Acreage		Production	Value
	Planted	Harvested		
	Acres	Acres	Tons	1,000 Dollars
1940...............	—	22,460	83,900	1,526
1950...............	—	24,870	103,000	3,139
1960...............	12,770	11,080	72,040	2,235
1970...............	9,000	8,300	45,900	1,981
1980...............	4,900	4,890	19,900	2,245
1982...............	3,040	2,640	9,500	2,145
1983...............	2,720	2,590	7,810	1,493
1984...............	2,350	2,250	8,150	1,432
1985...............	2,400	2,400	10,390	1,559
1986...............	1,230	1,230	3,330	496
1987...............	2,430	2,330	9,210	1,285
1988...............	2,400	2,300	7,890	1,081

1/ Includes tomatoes, green peas, sweet corn, snap beans, green lima beans, table beets, and cucumbers for pickles.

CATTLE AND CALVES

Cattle and calf inventory on farms and ranches in Utah totaled 770,000 head on January 1, 1989, up 1 percent from the previous year. Last year's level of 760,000 head was the lowest level since 1968. The cow inventory, at 389,000 head, was down slightly from last year's level of 391,000. The losses in cow numbers came in the area of beef cows which, at 315,000 head, were down 3,000 head from last year's level. Milk cow numbers, however, were estimated at 74,000 head--up 1,000 from January 1, 1988. Much of the increase in cattle and calf inventory came in the category of heifers weighing 500 pounds or more. Beef cow replacement heifers in this category were estimated at 56,000 head, up 10 percent from last year. Milk cow replacements, at 39,000 head, increased 11 percent from a year ago. Other heifers inventory was estimated at 44,000--2,000 head above January 1, 1988. The number of steers weighing 500 pounds and over also increased to a January 1, 1989, level of 94,000 head--a 4 percent increase from a year ago. Bulls, at 21,000 head, were up 3,000 head. Calves weighing less than 500 pounds, on hand as of January 1, were at 127,000 head--down 5 percent from last year.

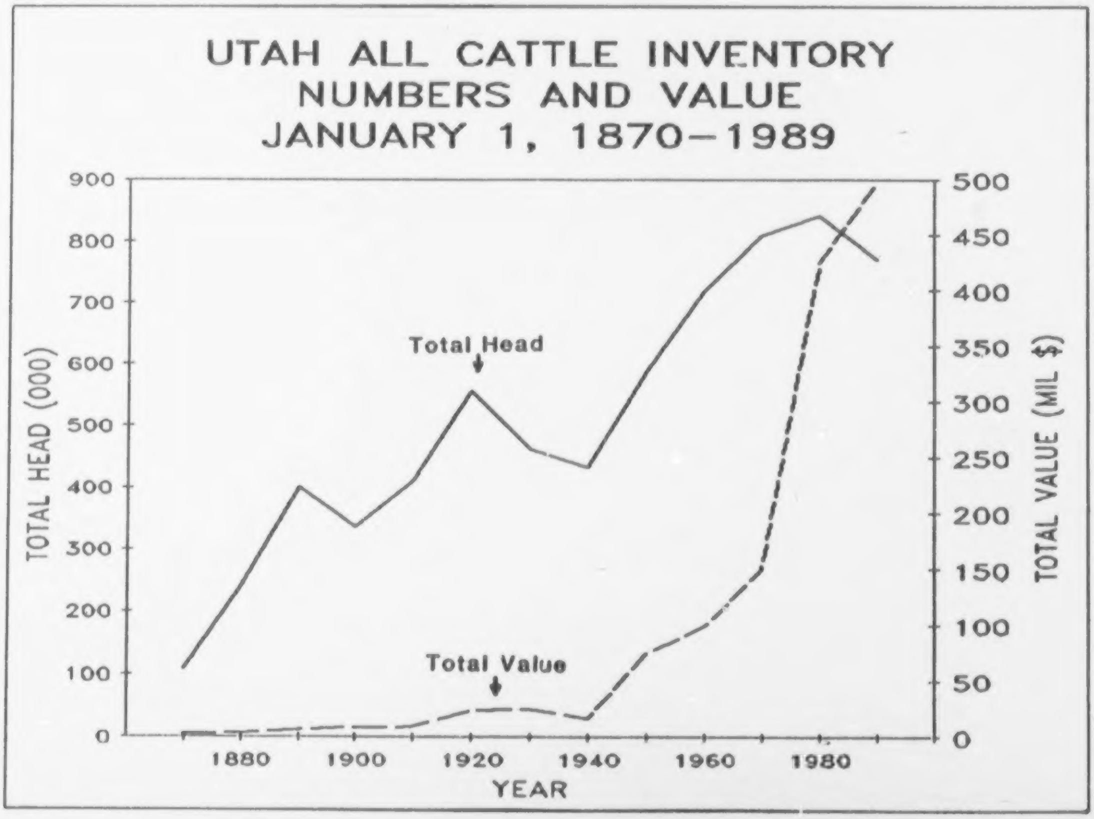
The 1988 calf crop in Utah totaled 352,000 head, up slightly from the 1987 crop of 350,000 head. Cattle and calves on full feed for slaughter totaled 48,000 head, compared with 45,000 on January 1, 1988.

The 1988 estimate of the number of Utah cattle operations was 8,500--down 100 from the previous year. Using an average per head value of $645, the total inventory was valued at $496.7 million, a 20 percent increase over last year.

Total beef production in Utah during 1988 was 315 million pounds live weight--8 percent above 1987. Marketings during the year, at 384 million pounds, were 14 percent above the previous year. Cash receipts from 1988 cattle and calf marketings, at $267 million, were 24 percent above 1987 receipts.

All Cattle: Number of Cattle Farms, and Number and Value of Cattle on Farms, Utah, January 1, Selected Years

Year	Farms		Cattle on Farms January 1			
	With Cattle	With Milk Cows	Total Number	Value Per Head	Value Total	On Feed For Market
			1,000 Head	Dollars	1,000 Dollars	1,000 Head
1940.........	--	--	432	38.20	16,502	--
1950.........	--	--	588	126.00	74,088	40
1960.........	--	--	719	136.00	97,784	61
1970.........	10,000	3,800	808	185.00	149,480	57
1980.........	10,000	2,600	840	505.00	424,200	60
1982.........	9,800	2,600	920	365.00	335,800	48
1983.........	9,600	2,600	950	390.00	370,500	49
1984.........	9,500	2,400	865	400.00	346,000	35
1985.........	9,300	2,300	800	395.00	316,000	40
1986.........	8,800	2,100	790	395.00	312,050	33
1987.........	8,600	2,000	770	410.00	315,700	36
1988.........	8,500	1,900	760	545.00	414,200	45
1989.........	--	--	770	645.00	496,650	48



UTAH ALL CATTLE INVENTORY
NUMBERS AND VALUE
JANUARY 1, 1870–1989

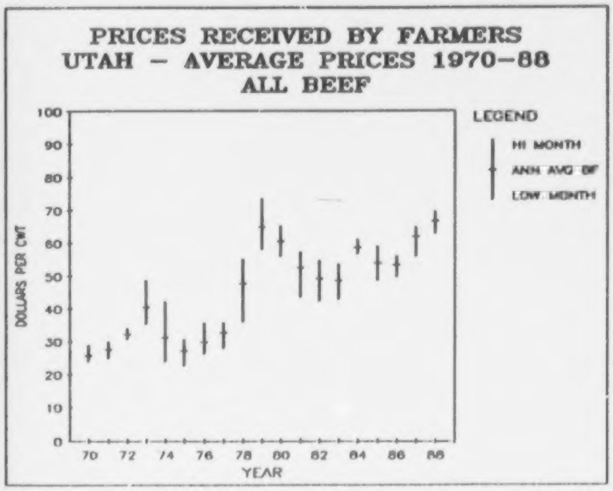
Cattle: Inventory by Classes and Age, Utah, January 1, Selected Years.

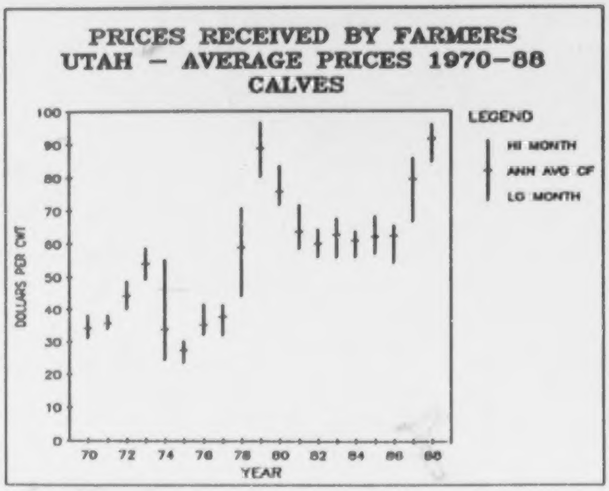
Year	All Cattle and Calves	For Milk			Beef Cattle				
		Cows and Heifers 2 Yrs.	Heifers 1-2 Yrs.	Heifer Calves	Cows 2 Yrs. +	Heifers 1-2 Yrs.	Calves	Steers 1 Yr. +	Bulls 1 Yr. +
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
1940....	432	103	25	32	115	34	77	37	9
1950....	588	108	25	32	194	62	101	54	12
1960....	719	108	31	35	252	65	154	65	9
1970 1/.	808	82	25	28	342	69	188	59	15

1/ Beginning with January 1, 1971, the classification estimates for cattle were changed from sex and age to sex and weight--See Table below.

Cattle: Inventory by Classes and Weight, Utah, January 1, Selected Years.

Year	All Cattle and Calves	All Cows and Heifers that have Calved			Heifers 500 Pounds and Over				Steers 500 Lbs. & Over	Bulls 500 Lbs. & Over	Steers, Heifers & Bulls Under 500 Lbs.
		Total	Beef Cows	Milk Cows	Beef Cow Replacements	Milk Cow Replacements	Other	Total			
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
1970..	808	392	316	76	52	44	26	122	75	17	202
1980..	840	400	325	75	54	42	33	129	80	18	213
1961..	875	424	344	80	61	42	29	132	77	20	222
1982..	920	450	364	86	56	42	29	127	78	21	244
1983..	950	460	374	86	67	35	42	144	104	22	220
1984..	865	424	340	84	54	37	28	119	104	17	201
1985..	800	369	289	80	45	40	31	116	96	16	203
1986..	790	380	298	82	44	44	34	122	95	17	176
1987..	770	394	320	74	45	36	41	122	90	19	145
1988..	760	391	318	73	51	35	42	128	90	18	133
1989..	770	389	315	74	56	39	44	139	94	21	127


PRICES RECEIVED BY FARMERS
UTAH – AVERAGE PRICES 1970–88
ALL BEEF


PRICES RECEIVED BY FARMERS
UTAH – AVERAGE PRICES 1970–88
CALVES

Calf Crop: Utah, Selected Years

Year	Cows and Heifers 2 yrs. & Older January 1	Cows that Have Calved January 1	Calf Crop	Calf Crop As Percent of Cows and Heifers 2+ January 1 1/ a/	Calf Crop as Percent of Cows Calved January 1 1/ b/
	1,000 Head	1,000 Head	1,000 Head	Percent	Percent
1940......	218	--	174	80	--
1950......	302	--	263	87	--
1960......	360	--	317	88	--
1970......	424	392	372	88	95
1980......	--	400	358	--	90
1982......	--	450	385	--	86
1983......	--	460	350	--	76
1984......	--	424	310	--	73
1985......	--	369	320	--	87
1986......	--	380	340	--	89
1987......	--	394	350	--	89
1988......	--	391	352	--	90

1/ Not strictly a calving rate. Figure represents calf crop expressed as percentage of the number of: a/ cows and heifers 2 years old and over on farms and ranches January 1 beginning of year, b/ cows that have calved on hand January 1 beginning of year.

Cattle and Calves: Inventory, Supply, and Disposition, Utah, Selected Years.

Year	Inventory Beginning of Year	Calf Crop	Inshipments	Marketings 1/		Farm Slaughter 2/	Deaths		Inventory End of Year
				Cattle	Calves	Cattle & Calves	Cattle	Calves	
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
1940....	432	174	25	101	45	11	8	12	454
1950....	588	263	41	139	98	12	16	15	612
1960....	719	317	54	234	111	11	14	22	698
1970....	808	372	50	213	140	4	17	24	832
1980....	840	358	50	205	106	5	16	41	875
1982....	920	385	54	248	87	2	26	46	950
1983....	950	350	36	299	105	3	22	42	865
1984....	865	310	63	310	60	3	20	45	800
1985....	800	320	50	222	89	4	19	46	790
1986....	790	340	70	254	113	3	18	42	770
1987....	770	350	70	263	107	3	15	42	760
1988....	760	352	118	298	111	2	14	35	770

1/ Includes custom slaughter for use on farms where produced, State outshipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter at commercial establishments.

Cattle and Calves: Production and Income, Utah, Selected Years.

Year	Production 1/	Marketings 2/	Average Price per 100 Lbs.		Value of Production	Cash Receipts 3/	Value of Home Consumption	Gross Income
			Cattle	Calves				
	1,000 Pounds	1,000 Pounds	Dollars	Dollars	1,000 Dollars	1,000 Dollars	1,000 Dollars	1,000 Dollars
1940......	105,545	103,170	6.80	8.90	--	7,478	198	7,676
1950......	157,125	158,135	23.20	26.80	--	38,794	850	39,644
1960......	217,665	257,715	18.40	23.40	41,993	49,373	1,172	50,545
1970......	256,121	259,978	25.60	34.20	70,803	71,552	2,189	73,741
1980......	257,490	251,370	60.30	75.50	161,267	156,938	7,518	164,456
1982......	300,220	290,130	49.10	59.70	150,512	146,511	5,131	151,642
1983......	298,095	367,600	48.40	62.40	149,895	184,533	5,518	190,051
1984......	259,040	357,400	58.60	60.70	152,317	209,940	6,124	216,064
1985......	260,660	282,975	53.90	61.90	142,356	155,193	5,121	160,314
1986......	283,430	326,875	53.30	62.10	153,774	177,954	5,570	183,524
1987......	290,525	336,395	61.80	79.40	185,814	214,954	5,729	220,683
1988......	314,500	383,890	66.50	91.50	219,958	266,665	4,309	270,974

1/ Adjustments made for inshipments and changes in inventories. 2/ Excludes custom slaughter for use on farms where produced and interfarm sales within the State. 3/ Receipts from marketings of live cattle and sale of farm slaughter.

Commercial Cattle and Calf Slaughter 1/: Number and Liveweight, Utah, Annual, Selected Years, and Monthly 1987-88.

Year	Cattle			Calves 2/		
	Number	Weight per Head	Total Live Weight	Number	Weight per Head	Total Live Weight
	1,000 Head	Pounds	1,000 Pounds	1,000 Head	Pounds	1,000 Pounds
1944 3/.....	102.9	--	--	42.5	--	--
1950........	108.5	965	104,762	21.7	275	5,966
1960........	212.2	994	210,924	12.7	316	4,008
1970........	258.5	1,040	268,914	3.2	397	1,270
1980........	191.9	1,093	209,880	0.2	338	56
1982........	221.0	1,080	238,641	0.1	326	44
1983........	258.4	1,123	290,270	0.1	364	53
1984........	307.5	1,120	344,397	0.4	379	133
1985........	347.6	1,149	399,389	0.5	372	197
1986........	392.4	1,136	445,826	1.0	354	352
1987........	427.4	1,174	501,800	0.2	308	76
1988........	474.8	1,177	558,919	0.4	301	114
1987						
Jan.	35.9	1,172	42,034	4/	--	--
Feb.	30.1	1,197	36,034	4/	--	--
Mar.	33.5	1,179	39,497	4/	--	--
Apr.	38.1	1,180	44,970	4/	--	--
May	31.0	1,146	35,537	4/	--	--
Jun.	34.9	1,131	39,501	4/	--	--
Jul.	39.0	1,158	45,148	4/	--	--
Aug.	37.9	1,168	44,303	4/	--	--
Sep.	37.2	1,197	44,540	4/	--	--
Oct.	36.1	1,202	43,449	4/	--	--
Nov.	34.3	1,166	39,962	4/	--	--
Dec.	39.3	1,190	46,826	4/	--	--
1988						
Jan.	38.9	1,190	46,229	4/	--	--
Feb.	37.9	1,197	45,368	4/	--	--
Mar.	40.4	1,197	48,334	4/	--	--
Apr.	39.4	1,167	45,932	4/	--	--
May	39.4	1,146	45,108	4/	--	--
Jun.	40.8	1,141	46,514	4/	--	--
Jul.	40.0	1,145	45,846	4/	--	--
Aug.	43.4	1,171	50,863	4/	--	--
Sep.	38.7	1,194	46,240	4/	--	--
Oct.	39.2	1,207	47,341	0.1	369	41
Nov.	36.2	1,189	43,069	0.1	307	16
Dec.	40.5	1,188	48,074	0.1	240	23

1/ Includes slaughter in Federally inspected plants and in other slaughter plants, but excludes animals slaughtered on farms. 2/ Annual data are incomplete in years that monthly data were not published to avoid disclosing individual operations. 3/ First year of record. 4/ Not printed to avoid disclosing individual operations.

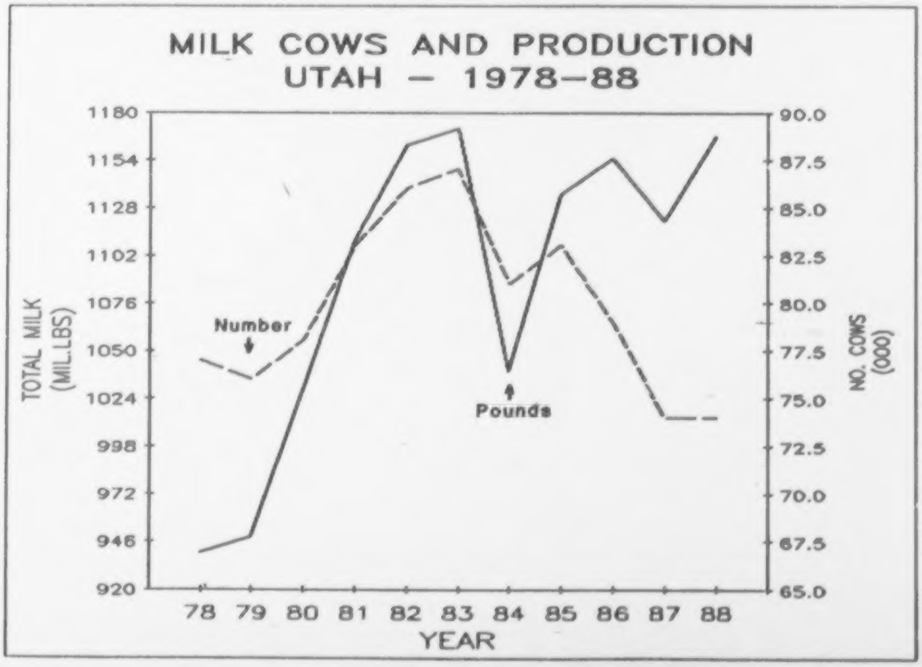
DAIRY

Utah dairy herds produced a total of 1,167 million pounds of milk in 1988, up 4 percent from the 1987 level and 4 percent above the 5-year average. The increase in milk production is attributed to an increase in milk per cow.

Production per cow, at 15,770 pounds, was up 4 percent from a year earlier, and 9 percent higher than the 5-year average. The 1988 milk fat per cow level was 571 pounds, up 27 pounds from the previous year. Milk per cow and milkfat per cow were both new highs.

Cash receipts from milk marketings during 1988 totaled $136.4 million, up $2.1 million from 1987, but 9 percent below the record $150.1 million. The price per hundredweight (cwt.) of all milk was $11.93, compared with $12.26 received the previous year and the 1981 record high of $13.24.

There were 21 plants manufacturing dairy products in Utah during 1988. Total cheese production of 64 million pounds was 10 percent above 1987. American cheese production, at 35.9 million pounds, was 8 percent above the previous year and accounted for 56 percent of all cheese produced. Production of Swiss cheese totaled 24 million pounds--14 percent above 1987, and 38 percent of the total cheese produced in 1988. All other types of cheese accounted for the remainder. Butter production, at 10.7 million pounds, was up 19 percent from 1987 and was at its highest level since 1938. Ice cream production was at a record 10.6 million gallons, compared with the 1987 record level of 9.8 million gallons.



UTAH AGRICULTURAL STATISTICS 1989

Milk Cows and Milk Production by Months, Utah, Selected Years.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total 1/
Milk Cows 2/ (Thousand Head)													
1940......	96	96	96	96	96	96	96	96	96	96	97	97	96
1950......	100	100	100	100	100	100	100	100	100	100	99	99	100
1960......	95	94	94	94	94	94	94	94	94	94	94	93	94
1970......	76	76	77	77	78	78	78	78	79	79	80	80	78
1980......	75	76	76	77	78	78	79	80	79	79	78	79	78
1982......	86	86	86			3/86			3/85			3/85	86
1983......	86	85	86	87	88	89	88	87	86	85	86	86	87
1984......	84	82	81	81	81	82	82	81	80	80	80	80	81
1985......			3/80			3/83			3/85			3/83	83
1986......			3/82			3/81			3/79			3/75	79
1987......			3/74			3/76			3/74			3/72	74
1988......			3/73			3/74			3/75			3/74	74
Milk per Cow 4/ (Pounds)													
1940......	427	426	483	518	597	566	537	485	436	437	398	414	5730
1950......	527	487	546	587	659	665	625	557	479	479	451	483	6550
1960......	660	640	710	720	770	735	700	670	630	650	610	635	8130
1970......	840	800	900	900	940	920	920	910	860	860	810	840	10500
1980......	1080	1010	1120	1115	1195	1150	1190	1140	1075	1075	1015	1040	13179
1982......	1047	965	1116			5/3565			5/3588			5/3267	13512
1983......	1095	1010	1165	1160	1195	1180	1225	1210	1130	1105	1025	1025	13460
1984......	1010	960	1060	1070	1150	1130	1160	1110	1060	1060	990	1025	12827
1985......			5/3165			5/3505			5/3625			5/3410	13675
1986......			5/3475			5/3800			5/3770			5/3545	14646
1987......			5/3635			5/3830			5/3890			5/3790	15149
1988......			5/3710			5/4095			5/4055			5/3905	15770
Milk Produced (Million Pounds)													
1940......	41	41	46	50	57	54	52	47	42	42	38	40	550
1950......	53	49	55	59	60	66	62	56	48	48	45	48	655
1960......	63	60	67	68	72	69	66	63	59	61	57	59	764
1970......	64	61	69	69	73	72	72	71	68	68	65	67	819
1980......	81	77	85	86	93	90	94	91	85	85	79	82	1028
1982......	90	83	96			6/307			6/305			6/281	1162
1983......	94	86	100	101	105	105	108	105	97	94	88	88	1171
1984......	85	79	86	87	93	93	95	90	85	85	79	82	1039
1985......			6/253			6/291			6/308			6/283	1135
1986......			6/285			6/308			6/298			6/266	1157
1987......			6/269			6/291			6/288			6/273	1121
1988......			6/271			6/303			6/304			6/289	1167

1/ Milk cows, average number during year. 2/ Includes dry cows, excludes heifers not yet fresh. 3/ Average for quarter. 4/ Excludes milk sucked by calves. 5/ Quarterly milk production divided by quarterly average of milk cows. 6/ Total produced for quarter.

Milk Cows and Production: Milk and Milkfat on Farms, Utah, Selected Years.

Year	Farms with milk cows	Number of milk cows on farms 1/	Production of Milk and Milkfat				
			Per milk cow		Percentage of fat in all milk Produced	Total	
			Milk	Milkfat		Milk	Milkfat
	1,000	1,000	Pounds	Pounds	Percent	Million Pounds	Million Pounds
1940...		96	5,730	215	3.75	550	21
1950...		100	6,550	246	3.75	655	25
1960...		94	8,130	297	3.65	764	28
1970...	3.8	78	10,500	382	3.64	819	30
1980...	2.6	78	13,179	468	3.55	1,028	36.5
1982...	2.6	86	13,512	478	3.54	1,162	41.1
1983...	2.6	87	13,460	472	3.51	1,171	41.1
1984...	2.4	81	12,827	455	3.55	1,039	36.9
1985...	2.3	83	13,675	485	3.55	1,135	40.3
1986...	2.1	79	14,646	521	3.56	1,157	41.2
1987...	2.0	74	15,149	544	3.59	1,121	40.2
1988...	1.9	74	15,770	571	3.62	1,167	42.2

1/ Average number on farms during year, excluding heifers not yet fresh.

Milk Disposition: Milk Used and Marketed by Farmers, Utah, Selected Years.

Year	Milk Used on Farms Where Produced				Milk Marketed by Farmers			
	Fed to Calves	Consumed as Fluid Milk and Cream	Used for Farm-Churned Butter	Total	Sold to Plants and Dealers		Sold Directly to Consumers	Total
					As Whole Milk	As Farm Separated Cream		
	Million Pounds	Million Pounds	Million Pounds	Million Pounds	Million Pounds	Million Pounds	Million Pounds	Million Pounds
1940....	17	61	22	100	296	116	35	1/450
1950....	22	51	13	86	515	26	28	569
1960....	18	33	5	56	675	11	22	708
1970....	9	18	--	27	740	2	50	792
1980....	9	9	--	18	985	--	25	1,010
1982....	14	9	--	23	1,110	--	29	1,139
1983....	16	7	--	23	1,116	--	32	1,148
1984....	18	5	--	23	980	--	36	1,016
1985....	18	4	--	22	1,070	--	43	1,113
1986....	20	4	--	24	1,090	--	43	1,133
1987....	21	4	--	25	1,045	--	51	1,096
1988....	20	4	--	24	1,095	--	48	1,143

1/ Includes 3,000,000 for farm churned butter sold.

Milk and Cream Marketed by Farmers: Quality, Price and Cash Receipts, Utah, Selected Years.

Year	Milk Sold to Plants and Dealers				Cream Sold to Plants and Dealers			Milk Sold Directly to Consumers 2/		
	Quantity	Percent Fluid Grade 1/	Price per 100 Lb	Cash Receipts	Quantity Milkfat	Price per Lb Fat	Cash Receipts	Quantity	Price per Quart	Cash Receipts
	Million Pounds	Percent	Dol.	1,000 Dollars	1,000 Pounds	Cents	1,000 Dollars	1,000 Quarts	Cents	1,000 Dollars
1940..	296	--	1.45	4,292	4,330	30	1,299	16,000	7.7	1,232
1950..	515	--	3.69	19,004	970	62	601	13,000	16.0	2,080
1960..	675	--	4.07	27,472	400	55	220	10,000	18.0	1,800
1970..	740	71	5.48	40,552	71	59	42	23,256	21.5	5,000
1980..	985	70	12.50	123,125	--	--	--	11,628	38.0	4,419
1982..	1,110	67	12.90	143,190	--	--	--	13,488	41.0	5,530
1983..	1,116	65	12.90	143,964	--	--	--	14,884	41.0	6,102
1984..	980	66	12.90	126,420	--	--	--	16,744	43.0	7,200
1985..	1,070	74	12.00	128,400	--	--	--	20,000	43.0	8,600
1986..	1,090	78	11.80	128,620	--	--	--	20,000	43.0	8,600
1987..	1,045	82	11.90	124,355	--	--	--	23,721	42.0	9,963
1988..	1,095	80	11.60	127,020	--	--	--	22,326	42.0	9,377

1/ Percentage of milk sold to plants and dealers eligible for fluid use. 2/ Also includes milk produced by institutional herds.

Farm Dairy Products: Marketings, Income, and Value, Utah, Selected Years.

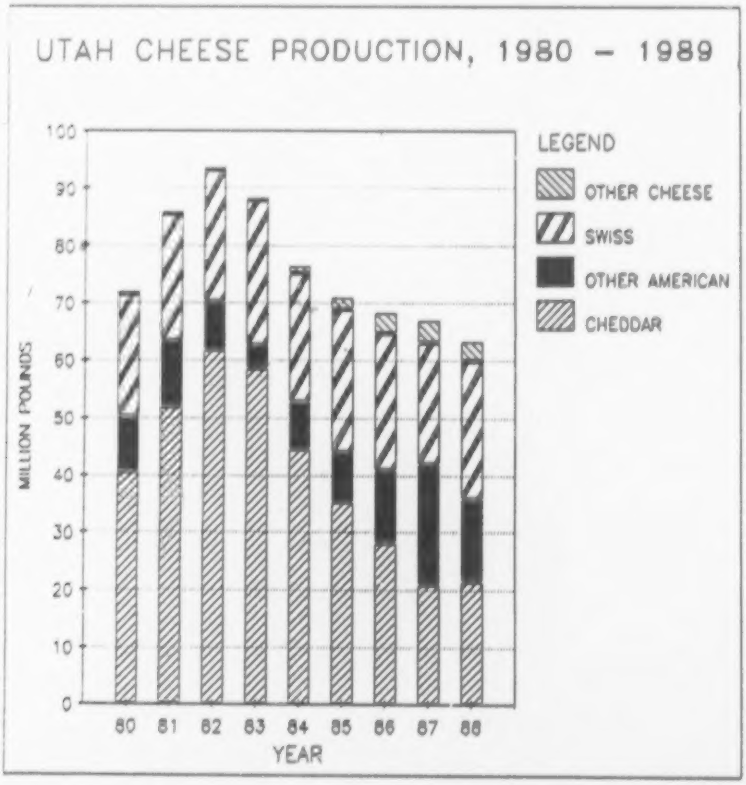
Year	Combined Marketings of Milk and Cream				Used for Milk Cream and Butter on Farms Where Produced		Gross Farm Income from Milk 1/	Farm Value of Milk Produced 2/
	Milk Utilized	Average Returns		Cash Receipts from Marketings	Milk Utilized	Value		
		Per 100 Pounds Milk	Per Pound Milkfat					
	Million Pounds	Dollars	Dollars	1,000 Dollars	Million Pounds	1,000 Dollars	1,000 Dollars	1,000 Dollars
1940....	450	1.53	.41	6,868	83	1,270	8,138	8,423
1950....	570	3.81	1.02	21,717	63	2,400	24,117	24,956
1960....	708	4.17	1.14	29,492	38	1,585	31,077	31,859
1970....	792	5.76	1.58	45,594	18	1,037	46,631	47,174
1980....	1,010	12.63	3.56	127,544	9	1,137	128,680	129,817
1982....	1,139	13.06	3.69	148,720	9	1,175	149,895	151,723
1983....	1,148	13.07	3.72	150,066	7	915	150,981	153,073
1984....	1,016	13.15	3.70	133,620	5	658	134,278	136,645
1985....	1,113	12.31	3.47	137,000	4	492	137,492	139,708
1986....	1,133	12.11	3.40	137,220	4	484	137,704	140,127
1987....	1,096	12.26	3.41	134,318	4	490	134,808	137,382
1988....	1,143	11.93	3.30	136,397	4	477	136,874	139,261

1/ Cash receipts from marketings of milk and cream plus value of milk used for home consumption. 2/ Includes value of milk fed to calves.

Butter and Cheese: Production, Utah, Selected Years.

Year	Butter	Cheese				
		American			Swiss	Total
		Cheddar	Other	All	1/	2/
	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds
1940......	10,426			4,496	0	4,496
1950......	5,834			6,901	5,163	12,064
1960......	7,106	5,460	608	6,068	5,890	11,958
1970......	8,411	18,279	3,911	22,190	10,776	32,966
1980......	5,592	40,554	9,709	50,263	21,144	71,659
1982......	7,870	61,651	8,470	70,121	23,055	93,389
1983......	7,616	58,649	3,947	62,596	25,581	88,359
1984......	6,369	44,571	8,230	52,801	22,455	76,666
1985......	8,315	35,343	8,939	44,282	24,729	71,088
1986......	7,936	28,368	12,667	41,035	23,841	68,450
1987......	9,007	21,098	11,999	33,097	21,000	58,017
1988......	10,686	21,678	14,219	35,897	24,031	63,563

1/ Data for years with less than 3 plants published by permission of the firms involved. 2/ Excludes cottage cheese.



Cottage Cheese and Dry Whey: Production, Utah, Selected Years.

Year	Cottage Cheese		Dry Whey		
	Curd 1/	Creamed	Human Food	Animal Feed	Total
	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds	1,000 Pounds
1940..........	670	966			
1950..........	2,476	3,563			
1960..........	4,796	7,458			
1970..........	5,236	8,795	2/	2/	12,190
1980..........	5,427	3/8,980	20,309	520	20,829
1982..........	5,547	3/9,277	21,774	692	22,466
1983..........	5,412	3/8,979	18,440	497	18,937
1984..........	5,651	3/9,307	14,514	1,175	15,689
1985..........	5,598	3/9,408	18,949	487	19,436
1986..........	4,688	3/7,959	18,298	416	18,714
1987..........	4,131	3/6,776	16,497	326	16,823
1988..........	4,314	3/7,107	4/	4/	

1/ Mostly used for processing into creamed or lowfat cottage cheese. 2/ Less than three plants. 3/ Includes any low fat production. 4/ Not published to avoid disclosure of individual operations.

Frozen Products: Production, Utah, Selected Years.

Year	Ice Cream 1/	Ice Milk			Sherbet 1/	Water Ices
		Hard	Soft	Total		
	1,000 Gallons	1,000 Gallons	1,000 Gallons	1,000 Gallons	1,000 Gallons	1,000 Gallons
1940......	1,235	--	--	201	60	--
1950......	2,532	--	--	578	76	--
1960......	3,849	563	771	1,334	350	181
1970......	4,456	1,189	1,547	2,736	449	292
1980......	8,198	804	2,078	2,882	593	127
1982......	8,428	534	1,660	2,194	546	302
1983......	8,872	470	1,884	2,354	509	2/
1984......	8,108	427	2,024	2,451	507	1,261
1985......	8,712	442	2,051	2,493	603	2/
1986......	9,447	468	1,956	2,424	715	2/
1987......	9,824	527	1,980	2,507	660	1,050
1988......	10,639	1,678	2,204	3,882	588	2/

1/ Essentially all hard frozen. 2/ Not published to avoid disclosure of individual plants.

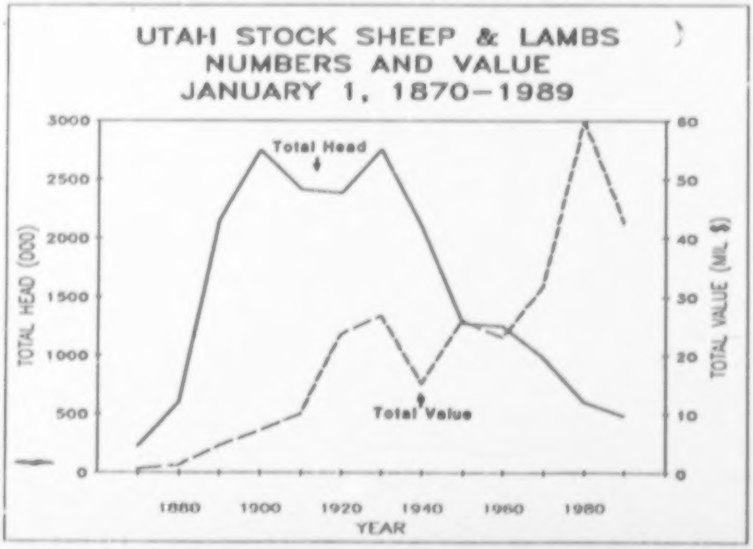
SHEEP AND WOOL

Sheepmen in Utah had a total of 503,000 sheep and lambs on farms January 1, 1989, up 5 percent from last year and up 8 percent from the 1986 record low. This marks the second consecutive year of increasing sheep numbers after six years of declining inventory. The stock sheep and lamb inventory on the first day of 1989 was 480,000 head, up 4 percent from a year earlier. Most of the increase in stock sheep numbers came in the area of ewes one year old and older. They were estimated at 405,000 head, up 15,000 head from the previous year. The inventory of rams and wethers over one year of age, at 12,000 head, remained virtually the same as last year. Ewe lambs over 3 months of age were estimated at 57,000 head--up 10 percent from a year earlier. Sheep and lambs on feed for slaughter totaled 23,000 head, up 28 percent from last year. The 1988 lamb crop estimate was set at 380,000 head, virtually the same as 1987.

The State of Utah had an estimated 2,100 sheep operations in 1988, down from 2,200 in 1987. The average value per head of Utah's January 1, 1989, inventory was $84.50, a significant drop from last year's level of $95.50 per head. The total value of Utah's sheep inventory was $42.5 million, down 7 percent from last year.

Cash receipts during 1988 totaled $16.1 million, down 26 percent from 1987. Marketings, at 28.4 million pounds, were 13 percent below the previous year. The 1988 average sheep price, at $20.00 per hundredweight (cwt.), was $1.40 below the 1987 average. The lamb price averaged $61.50 per cwt. during 1988, a drop of $10.10 from the previous year.

Wool production during 1988 totaled 4.6 million pounds, 6 percent above the 1987 figure. Weight per fleece, at 9.8 pounds, was virtually the same as a year ago.



Sheep: Number of Sheep Farms, and Number and Value of Sheep on Farms, Utah, January 1, Selected Years.

Year	Farms With Sheep	Sheep on Farms January 1				Sheep & Lambs on Feed
		Number	Value		Stock Sheep Number	
			Per Head	Total		
		1,000 Head	Dollars	1,000 Dollars	1,000 Head	1,000 Head
1940..........	--	2,248	--	15,895	2,095	153
1950..........	--	1,329	--	27,028	1,269	60
1960..........	--	1,336	--	24,461	1,249	87
1970..........	3,000	1,053	--	33,998	978	75
1980..........	2,400	625	100.50	62,813	595	30
1982..........	2,600	636	70.50	44,838	610	26
1983..........	2,600	590	58.00	34,220	560	30
1984..........	2,600	568	56.00	31,808	540	28
1985..........	2,500	515	63.50	32,703	490	25
1986..........	2,300	484	70.50	34,122	460	24
1987..........	2,200	464	83.00	38,512	440	24
1988..........	2,100	478	95.50	45,649	460	18
1989..........	--	503	84.50	42,504	480	23

Stock Sheep: Inventory by Classes, Utah, January 1, Selected Years.

Year	All Stock Sheep	Lambs		Sheep One Year and Over	
		Ewes	Wethers & Rams	Ewes	Rams & Wethers
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
1940..........	2,095	310	23	1,706	56
1950..........	1,269	165	5	1,066	33
1960..........	1,249	144	6	1,065	34
1970..........	978	125	7	821	25
1980..........	595	80	9	491	15
1982..........	610	84	6	505	15
1983..........	560	66	5	476	13
1984..........	540	60	4	465	11
1985..........	490	54	4	420	12
1986..........	460	45	3	400	12
1987..........	440	50	4	375	11
1988..........	460	52	6	390	12
1989..........	480	57	6	405	12

Lamb Crop: Utah, Selected Years.

Year	Breeding Ewes One Year and Older January 1	Lamb Crop 1/ Number	Lamb Crop 1/ As Percent of Ewes One Year and Older 2/
	1,000 Head	1,000 Head	Percent
1940........	1,706	1,365	80
1950........	1,066	895	84
1960........	1,065	927	87
1970........	821	780	95
1980........	491	476	97
1982........	505	446	88
1983........	476	440	92
1984........	465	430	92
1985........	420	420	100
1986........	400	400	100
1987........	375	380	101
1988........	390	380	97

1/ Lamb crop defined as lambs marked, docked or branded. 2/ Not strictly a lambing rate. Percent represents lambs saved expressed as a percent of ewes one year old and older on hand at beginning of year.

Wool Production and Value: Utah, Selected Years.

Year	All Sheep Shorn 1/	Weight per Fleece	Shorn Wool Production	Average Price per Pound 2/	Value 3/
	1,000 Head	Pounds	1,000 Pounds	Dollars	1,000 Dollars
1940......	1,990	9.3	18,507	.27	4,997
1950......	1,180	9.4	11,092	.58	6,433
1960......	1,203	9.9	11,950	.39	4,660
1970......	985	9.8	9,637	.32	3,084
1980......	575	9.9	5,670	.90	5,103
1982......	608	10.0	6,090	.68	4,141
1983......	556	10.3	5,739	.57	3,271
1984......	548	9.9	5,427	.84	4,559
1985......	498	9.6	4,793	.61	2,924
1986......	468	10.0	4,668	.66	3,081
1987......	440	9.8	4,320	.93	4,018
1988......	467	9.8	4,575	1.36	6,222

1/ Includes sheep shorn at commercial feeding yards. 2/ Monthly price weighted by monthly sales of wool. 3/ Production multiplied by annual average price.

Sheep and Lambs: Inventory Numbers, Lamb Crop and Disposition, Utah, Selected Years.

Year	Inventory Beginning of Year	Lambs Saved	Inshipments	Marketing 1/		Farm Slaughter 2/	Deaths		Inventory End of Year
				Sheep	Lambs		Sheep	Lambs	
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
1940....	2,248	1,365	40	127	894	38	236	110	2,248
1950....	1,329	895	92	39	668	22	125	70	1,392
1960....	1,336	927	54	59	759	21	125	76	1,277
1970....	1,053	780	100	74	646	25	94	85	1,009
1980....	625	476	30	20	346	9	56	50	650
1982....	636	446	30	69	340	8	50	55	590
1983....	590	440	17	46	346	8	36	43	568
1984....	568	430	12	71.5	335.5	6	36	46	515
1985....	515	420	10	45.5	324.5	6	30	55	484
1986....	484	400	10	49	306	5	25	45	464
1987....	464	380	19	24.5	292.5	3	24	41	478
1988....	478	380	10	22	281	5	30	27	503

1/ Includes custom slaughter for use on farms where produced, State outshipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter for farmers at commercial establishments.

Sheep and Lambs: Production and Income, Utah, Selected Years.

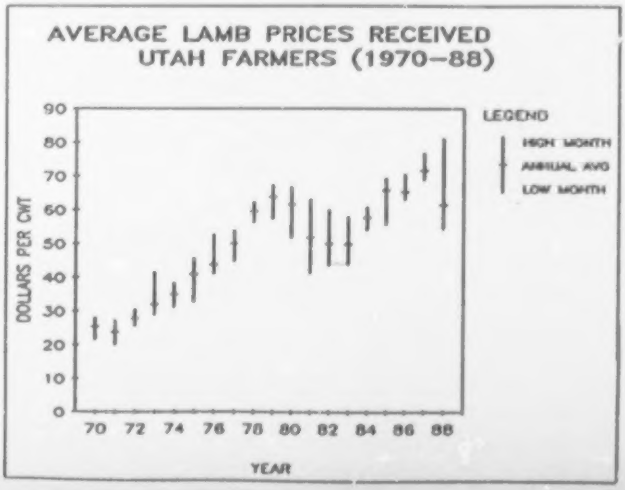
Year	Production 1/	Marketing 2/	Price per 100 pounds		Value of Production	Cash Receipts 3/	Value of Home Consumption	Gross Income
			Sheep	Lambs				
	1,000 Pounds	1,000 Pounds	Dollars	Dollars	1,000 $	1,000 $	1,000 $	1,000 $
1940.......	75,523	76,550	3.35	7.50	--	5,201	147	5,348
1950.......	56,611	56,624	10.60	24.90	--	13,535	278	13,813
1960.......	62,307	71,459	5.30	17.00	10,352	11,367	191	11,558
1970.......	60,909	73,550	7.10	25.40	15,009	16,992	608	17,600
1980.......	35,234	33,530	16.50	61.60	19,751	19,527	542	20,069
1982.......	35,386	42,366	16.70	49.90	16,240	18,277	535	18,812
1983.......	39,751	43,260	14.50	49.80	17,959	19,108	312	19,420
1984.......	38,330	45,786	14.10	57.70	20,165	21,772	345	22,117
1985.......	37,956	41,949	18.50	65.70	23,120	24,551	388	24,939
1986.......	37,047	40,624	21.30	65.30	22,747	23,400	361	23,761
1987.......	33,173	32,832	21.40	71.60	21,443	21,663	271	21,934
1988.......	31,010	28,420	20.00	61.50	17,038	16,109	387	16,496

1/ Adjustments made for changes in inventory and for inshipments. 2/ Excludes custom slaughter for use on farms where produced and interfarm sales within the State. 3/ Receipt from marketings and sale of farm slaughter.

Sheep and Lamb Slaughter: Number and Liveweight, Utah, Annual, Selected Years, and Monthly 1987-88.

Year/Month	Number 1/		Average Liveweight per Head		Total Liveweight	
	1,000 Head		Pounds		1,000 Pounds	
1944 2/	106.2		--		--	
1950	155.0		101		15,682	
1960	307.4		102		31,476	
1970	847.0		106		89,400	
1980	24.3		116		2,811	
1982	23.5		109		2,564	
1983	31.1		110		3,420	
1984	31.0		113		3,523	
1985	32.2		110		3,553	
1986	40.1		109		4,368	
1987	25.6		112		2,860	
1988	23.4		119		2,795	
	1987	1988	1987	1988	1987	1988
Jan.	2.5	1.4	112	118	280	160
Feb.	2.5	1.9	115	117	284	226
Mar.	2.8	1.7	111	123	308	213
Apr.	2.1	2.2	109	118	226	260
May	2.0	2.0	113	113	230	228
Jun.	1.8	1.6	111	126	203	199
Jul.	1.9	1.6	116	123	216	203
Aug.	1.6	1.5	109	130	179	193
Sep.	1.8	2.5	110	119	200	299
Oct.	2.5	2.3	111	117	276	265
Nov.	2.4	2.7	113	117	265	315
Dec.	1.7	2.0	111	118	193	233

1/ Includes slaughter under Federal inspection and other commercial slaughter, excludes farm slaughter. 2/ First year on record.


AVERAGE LAMB PRICES RECEIVED UTAH FARMERS (1970-88)

Utah sheepmen were asked to categorize sheep and lamb losses by cause on a January 1, 1989, survey. The survey, sponsored by the Utah Department of Agriculture, was used to make State estimates of sheep and lamb losses in 1988.

Sheep and lamb losses totaled 79 thousand head during 1988, down 21 percent from 1987. Total losses included 22,000 undocked lambs, 27,000 docked lambs, and 30,000 sheep. The total value of all losses was $7.1 million--20 percent below the previous year. Predators accounted for 45 percent of all losses, compared with 53 percent a year earlier. Nonpredator losses were 38 percent of the total compared with 32 percent the previous year.

Coyotes were the major cause of loss in 1988, accounting for 31 percent of all losses and a value of $2.2 million. Weather conditions were the second leading cause and were responsible for 7,100 deaths, 800 less than last year. Other major causes of losses were lambing complications, old age, poison, and mountain lions.

All unknown causes accounted for 15 percent of undocked lamb losses. Seventeen percent of both docked lamb losses and losses to sheep were also unknown.

Sheep and Lamb Losses by Cause, Utah 1988.

Cause	Total Head Lost			Percent of Losses			Value of All Losses 1/
	Lambs Before Docking	Lambs After Docking	Sheep	Lambs Before Docking	Lambs After Docking	Sheep	
	Number			Percent			Dollars
Dog	800	600	600	3.6	2.2	2.0	180,000
Coyote	4,600	12,800	6,900	20.9	47.4	23.0	2,187,000
Eagle	600	100	0	2.7	.4	.0	63,000
Bear	200	1,800	1,300	.9	6.7	4.3	297,000
Mountain Lion	200	1,800	1,500	.9	6.7	5.0	315,000
Other Animals	800	900	200	3.6	3.3	.7	171,000
Total Losses to Predators	7,200	18,000	10,500	32.7	66.7	35.0	3,213,000
Weather Conditions	4,800	1,400	900	21.8	5.2	3.0	639,000
Disease	800	1,100	1,300	3.6	4.1	4.3	288,000
Poison	200	500	2,900	.9	1.9	9.7	324,000
Lambing Complications	4,400		1,900	20.0	.0	6.3	567,000
Old Age			3,900	.0	.0	13.0	351,000
Theft	100	600	900	.5	2.2	3.0	144,000
Other (i.e., bloat, etc.)	1,300	800	2,500	5.9	3.0	8.3	414,000
Total Losses to Nonpredator Causes	11,600	4,400	14,300	52.7	16.3	47.7	2,727,000
All Unknown Causes	3,200	4,600	5,200	14.5	17.0	17.3	1,170,000
Total Losses	22,000	27,000	30,000	100.0	100.0	100.0	7,110,000

1/ Value per head of $90.00 assigned based on average of beginning of year and end of year inventory valuations.

HOGS AND PIGS

Utah's hog and pig farmers had a total of 33,000 hogs and pigs on December 1, 1988, up 27 percent from December 1, 1987. The total pig crop for 1988 was 46,000--35 percent above the 1987 figure. The large increase was due mostly to a large increase in sows farrowing and a slight increase in pigs saved per litter. The total number of sows farrowing during 1988 was 5,900, up from the 1987 level of 4,400. The number of hog farms, at 900, was virtually the same as the previous year. The total inventory value, at $2.3 million, was 5 percent above the 1987 value.

Cash receipts for 1988, at $3.5 million, were down 2 percent from the 1987 figure. Marketings totaled 9.2 million pounds for the year--24 percent above the preceding year. The average price for hogs and pigs during 1988 was $37.70 per hundredweight, down $10.00 from 1987.

Hogs and Pigs: Number of Hog Farms, and Inventory and Value of Hogs on Farms, Utah, Selected Years.

Year	Farms	Hogs and Pigs on Farms December 1		
	Number with Hogs	Number	Value	
			Per Head	Total
		1,000 Head	Dollars	1,000 Dollars
1940...........	--	1/125	6.60	825
1950...........	--	1/88	22.20	1,954
1960...........	--	1/68	16.20	1,102
1970...........	2,000	45	23.00	1,035
1980...........	2,200	58	63.00	3,654
1982...........	2,000	32	73.00	2,336
1983...........	1,600	33	80.00	2,640
1984...........	1,400	28	75.50	2,114
1985...........	1,200	23	79.00	1,817
1986...........	1,000	25	83.00	2,075
1987...........	900	26	84.00	2,184
1988...........	900	33	69.50	2,294

1/ January 1 inventory.

Hogs: Inventory by Classes and Weight Groups, Utah, Dec. 1, Selected Years.

Year	Total	Breeding	Market	Market Hogs and Pigs by Weight Group			
				Under 60 Lbs.	60-119 Lbs.	120-179 Lbs.	180 Lbs. and Over
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
1963 1/...	50	8	42	19	8	7	8
1970......	45	8	37	16	9	6	6
1980......	58	7	51	15	16	14	6
1982......	32	3	29	10	8	8	3
1983......	33	5	28	13	6	5	4
1984......	28	4	24	10	5	6	3
1985......	23	3	20	8	5	4	3
1986......	25	3	22	9	6	4	3
1987......	26	4	22	9	5	4	4
1988......	33	5	28	12	6	5	5

1/ First year on record.

Pig Crop: Sows Farrowing and Pigs Saved, Utah, Selected Years.

Year	Spring Pig Crop 1/			Fall Pig Crop 2/			Total Pig Crop Spring and Fall	
	Sows Farrowing	Pigs per Litter	Pigs Saved	Sows Farrowing	Pigs per Litter	Pigs Saved	Sows Farrowing	Pigs Saved
	1,000 Head	Head	1,000 Head	1,000 Head	Head	1,000 Head	1,000 Head	1,000 Head
1940......	16.0	6.0	96	10.0	6.8	68	26.0	164
1950......	10.0	6.4	64	7.0	6.9	48	17.0	112
1960......	5.8	6.7	39	6.2	7.3	45	12.0	84
1970......	4.8	7.1	34	4.6	7.2	33	9.4	67
1980......	5.0	7.0	35	8.0	6.0	48	13.0	83
1982......	3.0	7.7	23	3.0	7.0	21	6.0	44
1983......	2.8	7.4	21	2.7	7.7	21	5.5	42
1984......	2.3	7.0	16	2.2	7.4	16	4.5	32
1985......	2.3	6.4	15	1.7	7.5	13	4.0	28
1986......	2.3	7.9	18	1.9	7.6	14	4.2	32
1987......	2.3	7.4	17	2.1	7.9	17	4.4	34
1988......	2.9	7.6	22	3.0	8.0	24	5.9	46

1/ Spring, December through May. 2/ Fall, June through November.

Hogs and Pigs: Inventory, Supply, and Disposition, Utah, Selected Years.

Year	Inventory Beginning of Year	Annual Pig Crop	Inshipments	Marketings 1/	Farm Slaughter 2/	Deaths	Inventory End of Year
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head
1940........	125	164	3	139	32	16	105
1950........	88	112	1	83	19	15	84
1960........	68	84	1	64	11	10	68
1970........	43	67	2	58	3	6	45
1980........	55	83	2	73	2	7	58
1982........	40	44	2	50	1	3	32
1983........	32	42	2	38	1	4	33
1984........	33	32	2	35.1	1.4	2.5	28
1985........	28	28	1	30.5	1.2	2.3	23
1986........	23	32	2	28	1.1	2.9	25
1987........	25	34	3	30.6	.2	5.2	26
1988........	26	46	3	38.5	.8	2.7	33

1/ Includes custom slaughter for use on farm where produced, State out-shipments, but excludes interfarm sales within the State. 2/ Excludes custom slaughter for farmers at commercial establishments.

Hogs and Pigs: Production and Income, Utah, Selected Years.

Year	Production 1/	Marketings 2/	Price per 100 Lbs.	Value of Production	Cash Receipts 3/	Value of Home Consumption	Gross Income
	1,000 Pounds	1,000 Pounds	Dollars	1,000 Dollars	1,000 Dollars	1,000 Dollars	1,000 Dollars
1940......	31,760	27,800	5.70	--	1,734	268	2,002
1950......	23,272	18,687	18.60	--	3,779	544	4,323
1960......	16,611	13,676	15.70	2,608	2,210	331	2,541
1970......	13,852	12,488	22.40	3,103	2,797	269	3,066
1980......	18,483	16,125	36.70	6,762	5,918	488	6,406
1982......	10,722	11,224	49.20	5,234	5,522	408	5,930
1983......	9,493	8,766	47.20	4,448	4,138	271	4,409
1984......	7,956	7,971	45.50	3,596	3,627	293	3,920
1985......	6,780	6,929	41.00	2,768	2,841	226	3,067
1986......	6,907	6,367	47.00	3,223	2,992	238	3,230
1987......	7,807	7,468	47.70	3,683	3,562	50	3,612
1988......	10,371	9,246	37.70	3,899	3,486	157	3,643

1/ Adjustments made for inshipments and changes in inventories. 2/ Excludes interfarm sales and custom slaughter for use on farms where produced. 3/ Includes receipts from marketings and from sales of farm slaughtered meat.

Commercial Hog Slaughter: Number and Liveweight, Utah, Annual, Selected Years, and Monthly 1987-88.

Year/Month	Number 1/	Average Liveweight per Head	Total Liveweight
	1,000 Head	Pounds	1,000 Pounds
1944 2/.....	258.2	--	--
1950........	246.7	228	56,259
1960........	306.4	227	69,695
1970........	117.4	229	26,837
1980........	154.5	236	36,428
1982........	177.3	238	42,290
1983........	194.6	246	47,808
1984........	214.0	239	51,192
1985........	217.1	232	50,409
1986........	221.6	240	53,092
1987........	232.0	240	55,596
1988........	261.5	240	62,736

Year/Month	Number 1/		Average Liveweight per Head		Total Liveweight	
	1987	1988	1987	1988	1987	1988
Jan.	18.7	18.0	244	239	4,551	4,303
Feb.	17.5	19.0	242	239	4,238	4,552
Mar.	20.2	21.3	239	241	4,810	5,137
Apr.	19.2	19.7	238	244	4,576	4,805
May	18.1	20.3	239	241	4,315	4,904
Jun.	19.2	21.6	242	238	4,648	5,129
Jul.	20.0	21.3	238	244	4,756	5,191
Aug.	18.9	25.5	239	233	4,516	5,950
Sep.	19.8	23.1	239	236	4,722	5,455
Oct.	21.0	25.3	238	239	4,998	6,058
Nov.	19.2	22.7	240	243	4,610	5,523
Dec.	20.3	23.6	239	243	4,857	5,729

1/ Includes slaughter under Federal inspection and other commercial slaughter, excludes farm slaughter. 2/ First year on record.

CHICKENS AND EGGS

Value of eggs produced in Utah totaled $21.4 million in 1988, a new record high. This level was 15 percent above the 1987 value of production. Production of 493 million eggs was down 1 percent from the previous year; but the average price per dozen, of 52 cents, was 7 cents above 1987. The average number of layers in 1988 was 1.95 million, 1 percent above the 1987 average. Eggs produced per layer, at 253, was down 2 percent from the previous year.

Pounds of chickens sold, at 4.3 million, was 12 percent above 1987. The average price of 6.7 cents per pound was up 12 percent from the previous year and produced a total value of sales of $287,000.

Layers and Eggs 1/: Number, Production and Value of Production, Utah, Selected Years.

Year	Average Number of Layers	Eggs per Layer	Total Egg Production	Price per Dozen	Value of Production
	1,000	Number	Millions	Cents	1,000 Dollars
1940.........	1,739	155	269	18.7	4,176
1950.........	2,310	184	425	39.5	13,989
1960.........	1,377	223	307	34.9	8,928
1970.........	1,256	216	271	36.0	8,130
1980.........	1,762	236	416	49.0	16,987
1984.........	1,845	236	436	53.0	19,257
1985.........	1,827	229	418	50.0	17,417
1986.........	1,781	257	457	49.0	18,661
1987.........	1,919	258	496	45.0	18,600
1988.........	1,946	253	493	52.0	21,363

1/ Estimates cover the 12 month period, December 1 previous year through November 30.

Chicken Inventory 1/: Number and Value, Utah, Selected Years.

Date	Hens & Pullets of Laying Age	Pullets 3 Mo. & Over--Not Laying	Pullets Under 3 Months	Other Chickens	Total Chickens		
					Number	Value	
						Average	Total
	1,000 Head	1,000 Head	1,000 Head	1,000 Head	1,000 Head	Dollars	1,000 Dollars
Jan. 1, 1940...	2/2,191	3/	4/	175	2,366	.63	1,491
Jan. 1, 1950...	2/2,871	3/	4/	150	3,021	1.22	3,686
Jan. 1, 1960...	2/1,691	3/	4/	69	1,760	.94	1,654
Jan. 1, 1970...	1,320	190	219	10	1,739	1.20	2,087
Dec. 1, 1970...	1,182	218	327	10	1,737	1.10	1,911
Dec. 1, 1980...	1,871	91	134	4	2,100	1.65	3,465
Dec. 1, 1982...	1,773	300	250	3	2,326	2.05	4,768
Dec. 1, 1983...	1,800	290	248	7	2,345	2.00	4,690
Dec. 1, 1984...	1,868	120	321	5	2,314	2.35	5,438
Dec. 1, 1985...	1,748	377	297	3	2,425	1.75	4,244
Dec. 1, 1986...	1,858	203	345	3	2,409	1.80	4,336
Dec. 1, 1987...	2,025	325	167	3	2,520	1.80	4,536
Dec. 1, 1988...	1,868	202	186	4	2,260	1.65	3,729

1/ Excludes commercial broilers. 2/ Includes pullets not of laying age. 3/ Included with hens and pullets. 4/ Included in hens and pullets and in other chickens.

Chickens 1/: Lost, Sold, and Value of Sales, Utah, Selected Years.

Year	Number Lost 2/	Number Sold	Pounds Sold	Price per Pound	Value of Sales
	1,000 Head	1,000 Head	1,000	Cents	1,000 Dollars
1940.........	426	2,044	6,132	11.0	675
1950.........	634	3,562	13,892	20.7	2,876
1960.........	334	1,018	4,174	8.2	342
1970.........	200	638	2,552	4.0	102
1980.........	260	804	3,055	8.0	244
1982.........	219	970	3,589	5.4	194
1983.........	154	955	3,534	13.0	459
1984.........	185	1,090	4,360	9.0	392
1985.........	170	1,250	5,000	8.0	400
1986.........	165	860	3,440	10.0	344
1987.........	212	955	3,820	6.0	229
1988.........	202	1,070	4,280	6.7	287

1/ Estimates exclude broilers and cover the 12 month period January 1 through December 31--in 1970, estimating period changed to Dec. 1 previous year through Nov. 30. 2/ Includes death and other losses during the 12 month period.

TURKEYS

The value of turkeys produced in Utah during 1988 was $48.6 million, 28 percent above the previous year, but 1 percent below the 1986 record. Production of 90 million pounds was virtually the same as 1987. Production came from 3.9 million birds with an average live weight of 23.1 pounds. The number of birds and average live weight were up 5 percent and down 5 percent, respectively.

Turkey growers received 54 cents per pound for their turkeys in 1988, up 12 cents from the 1987 price, but 10 cents below the 1986 record high. Utah turkey farms are concentrated in Sanpete and Sevier Counties--centered around hatcheries located in Moroni and Richfield. The value of turkeys produced in Utah accounts for approximately 8 percent of the total agricultural receipts.

Turkeys: Production and Gross Income, Utah, Selected Years.

Year	Raised			Average Weight	Produced	Per Pound 1/	Gross Income 2/
	Heavy	Light	Total				
	1,000 Head	1,000 Head	1,000 Head	Pounds	1,000 Pounds	Cents	1,000 Dollars
1940.....	--	--	854	16.0	13,656	17.4	2,376
1950.....	--	--	1,673	21.5	35,914	27.8	9,984
1960.....	2,706	95	2,801	20.2	56,515	24.3	13,733
1970.....	3,946	0	3,946	21.6	85,234	22.1	18,837
1980.....	2,409	0	2,409	22.2	53,480	50.0	26,740
1982.....	2,404	0	2,404	22.5	54,090	48.0	25,963
1983.....	2,328	0	2,328	23.4	54,475	47.0	25,603
1984.....	2,387	0	2,387	22.8	54,424	59.0	32,110
1985.....	3,082	0	3,082	24.3	74,893	62.0	46,433
1986.....	3,390	0	3,390	22.7	76,953	64.0	49,250
1987.....	3,731	0	3,731	24.2	90,290	42.0	37,922
1988.....	3,900	0	3,900	23.1	90,090	54.0	48,649

1/ Live weight equivalent price. 2/ Includes home consumption, less than 1% of production.

BEES AND HONEY

Utah honey production totaled 1.5 million pounds in 1988, down 13 percent from the 1987 level. The large decrease in production was due to a 7 pound drop in honey per colony. The number of colonies, at 36,000, was up 1,000 colonies from the previous year. The value per pound of honey was estimated at 67 cents per pound--a new record high. The 1988 price was 13 cents above the 1987 price and gave Utah honey a total value of $989,000, 8 percent above the previous year.

Several apiaries transport bees to surrounding states for legume and orchard pollination. The honey produced during these moves is counted in the estimate of the state where collected.

Honey: Number of colonies, Production, Average Price and Value, Utah, Selected Years.

Year	Colonies of Bees	Honey			
		Production		Value	
		Per Colony	Total	Per Pound	Total
	1,000 Colonies	Pounds	1,000 Pounds	Cents	1,000 Dollars
1940.....	53	45	2,385	3.6	86
1950.....	49	51	2,499	11.0	275
1960.....	52	34	1,768	15.6	276
1970.....	50	36	1,800	18.1	326
1980.....	46	33	1,518	58.1	882
1981.....	46	37	1,702	59.2	1,008
1982 1/..					
1983 1/..					
1984 1/..					
1985 1/..					
1986.....	35	45	1,575	61	961
1987.....	35	48	1,688	54	912
1988.....	36	41	1,476	67	989

1/ Estimates not made 1982-85.

MINK

Utah mink farmers produced 535,400 mink pelts in 1987, placing second in the Nation for pelts produced. The 1987 figure was 12 percent above 1986. Utah also ranked second in the Nation for females bred to produce kits in 1988. There were 161,000 females bred in 1988 compared with 137,600 in 1987.

Standard was the most common type of pelt produced, accounting for 48 percent of all pelts produced in 1987. Demi-buff and Mahogany were also very popular, accounting for 21 and 9 percent of the total pelts, respectively.

There were 126 mink farms in Utah in 1987, up from 121 the previous year. The majority of all mink raised in the State are raised in five north central counties--Morgan, Summit, Salt Lake, Cache, and Utah.

Mink: Pelts Produced 1970-87 and Females Bred 1970-88, Utah and U.S.

Year	UTAH			UNITED STATES		
	Ranches Producing Pelts	Pelts Produced	Females Bred	Ranches Producing Pelts	Pelts Produced	Females Bred
		1,000	1,000		1,000	1,000
1970	308	396.0	134.0	2,227	4,532	1,416
1971	261	340.0	108.0	1,615	3,380	1,011
1972	225	285.0	94.5	1,380	2,965	858
1973	218	283.0	100.0	1,329	3,037	902
1974	198	315.0	103.0	1,221	3,128	905
1975	186	308.0	99.0	1,084	3,067	870
1976	168	323.0	97.7	1,015	3,026	847
1977	185	359.0	113.0	1,040	3,076	887
1978	191	411.0	129.0	1,095	3,358	925
1979	190	413.3	141.0	1,105	3,394	978
1980	190	465.7	149.0	1,122	3,501	1,037
1981	N/A	N/A	152.1	N/A	N/A	1,074
1982	175	545.4	N/A	1,116	4,085	N/A
1983	145	505.5	166.7	1,098	4,137	1,132
1984	159	487.5	156.0	1,084	4,220	1,115
1985	132	501.7	148.3	1,042	4,171	1,115
1986	121	479.4	144.3	989	4,096	1,073
1987	126	535.4	137.6	1/970	1/3,954	1,077
1988	2/	2/	161.0	2/	2/	1,145

Value of Mink Pelts, United States, 1982-87.

	1982	1983	1984	1985	1986	1/1987
Average Marketing Price (dollars)	28.90	29.90	30.80	28.00	41.30	43.00
Value of Mink Pelts (mil. dollars)	118.1	123.7	130.0	116.8	169.2	170.0

N/A=Not Available.

1/ Data are preliminary and will be revised next year based on additional information.

2/ Data available July 20, 1989.

FARM LABOR

Of the four survey periods between July 1988 and April 1989, the peak number of farm workers occurred in July when a total of 85,000 people were working on farms and ranches in the Mountain II Region, which includes Utah, Colorado, and Nevada. The average of all farm worker wage rates was highest in January, at $5.16 per hour; and the lowest in July when the average was $4.89 per hour. Farm workers paid on a hourly basis averaged over $5 per hour in all survey periods. Farm workers paid on other basis (including salary) generally received lower hourly pay. Data for farm workers paid on a piece rate basis were insufficient for estimates in three of the four survey periods, but was the highest rate of all methods of pay in the quarter that data were available. Supervisors were the highest paid type of farm worker, earning over $6 per hour in each survey period; while livestock and field workers received the second and third highest rates, respectively. Data on other type farm workers (including bookkeepers, maintenance, and other types of special temporary farm workers) were insufficient for estimating a wage rate in three of the four survey periods. Farm labor data, on the State level, for 1988 were not available, primarily due to budget constraints. The data are, however, published both on National and Regional levels.

Farm Labor and Wage Rates, Mountain II Region,
July 1988, October 1988, January 1989, and April 1989 1/.

	July 10-16, 1988	October 9-15, 1988	January 8-14, 1989	April 9-15, 1989
	Workers on Farms (000) 2/			
Total	85	65	52	64
Self-employed	32	28	26	28
Unpaid	21	11	7	10
Hired	32	26	19	26
	Hours Worked per Worker 2/			
Self Employed	56.1	47.4	34.2	46.7
Unpaid Workers	34.0	36.2	23.2	34.2
Hired Workers	37.2	45.3	40.9	48.7
	Method of Pay - Dollars per Hour 2/			
Hourly	5.00	5.21	5.01	5.11
Piece Rate	3/	5.75	3/	3/
Other	4.74	4.43	5.33	4.92
All	4.89	4.94	5.16	5.04
	Type of Work - Dollars per Hour 2/			
Field Workers	4.33	4.09	4.64	4.60
Livestock Workers	5.05	4.25	4.92	4.61
Field & Livestock Workers	4.75	4.15	4.82	4.60
Supervisory	6.62	8.65	6.84	6.40
Other	3/	3/	5.98	3/

1/ Mountain II Region includes Colo., Nev., and Utah. 2/ Excludes Agricultural Service Workers. 3/ Insufficient data.

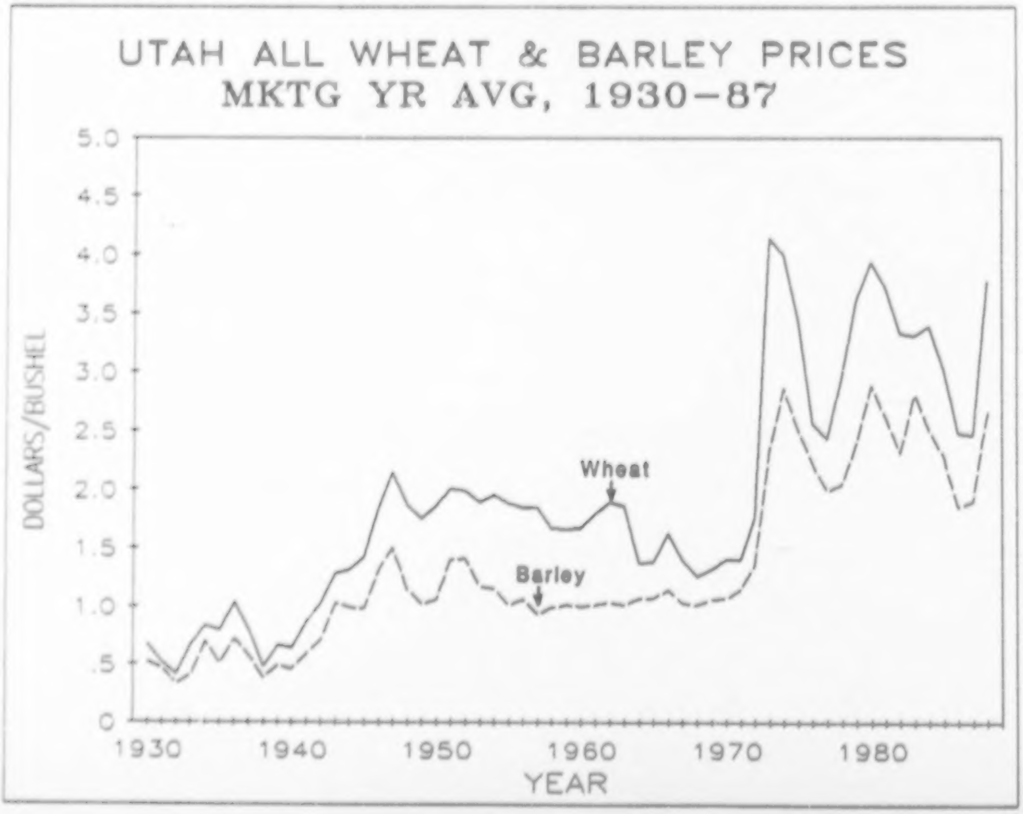
AGRICULTURAL PRICES

The price data collected by the National Agricultural Statistics Service each year have a major impact on the farm industry. These prices are parts of a series, which determines deficiency payments, and are used to compute an Index of Prices Received by Farmers. This provides a single indicator of farm price trends at a given time.

Most prices after 1979 are based on actual sales by producers of a commodity during the entire month. Preliminary sales prices are obtained for the current month, based on sales around the 15th of the month. This "mid-month" price is revised the following month when sales data for the entire month become available. Livestock prices prior to 1980, and crop prices prior to 1977, are mid-month prices.

Hay prices are based on sales for the first half of the month and are not revised monthly. Wool prices are mid-month levels, and are revised annually. Prices for fluid and manufacturing grade milk are published only after data for the entire month are available. All other commodities, published on a monthly basis, follow the preliminary mid-month and revised entire month procedure outlined above. Many prices for Utah agricultural products are published only on an annual basis, because Utah produces a very small portion of the National total.

Yearly average prices for each commodity are weighted, based on the volume of sales of each commodity during a given month.



Average Prices Received by Farmers, Utah, Selected Years

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
						BARLEY (Dollars per Bushel) 1/							
1950..	1.09	1.07	1.13	1.08	1.08	1.11	1.18	1.12	1.14	1.11	1.11	1.18	1.16
1960..	1.02	1.00	1.00	1.00	1.00	1.02	.98	.98	.98	1.00	1.00	1.01	1.00
1970..	1.10	1.10	1.09	1.04	1.03	1.05	1.01	.98	.99	1.04	1.07	1.12	1.07
1980..	2.49	2.51	2.64	2.58	2.50	2.46	2.53	2.56	2.67	2.89	2.93	2.92	2.88
1982..	2.65	2.63	2.61	2.54	2.63	2.64	2.52	2.29	2.16	2.27	2.23	2.30	2.31
1983..	2.40	2.05	2.36	2.58	2.78	2.78	2.61	2.60	2.73	2.82	2.77	2.88	2.80
1984..	2.94	2.92	2.86	2.96	2.90	2.93	2.79	2.40	2.37	2.43	2.46	2.50	2.50
1985..	2.52	2.61	2.65	2.64	2.51	2.43	2.39	2.15	2.11	2.20	2.29	2.44	2.28
1986..	2.33	2.26	2.39	2.39	2.46	2.24	1.92	1.79	1.80	1.87	1.86	1.83	1.85
1987..	1.91	1.88	1.82	1.83	1.93	1.78	1.75	1.74	1.79	1.83	1.88	1.93	1.90
1988..	1.93	2.05	1.92	1.90	2.05	1.98	2.46	2.58	2.68	2.72	2.89	2.65	2.65
						ALFALFA HAY, BALED (Dollars per Ton) 2/							
1950..	21.60	20.00	18.30	18.30	18.80	20.00	22.00	22.50	22.50	22.90	22.90	24.00	NA
1960..	27.00	27.50	26.50	26.50	26.70	26.70	26.40	26.40	27.00	27.00	28.00	28.50	NA
1970..	25.50	26.00	26.00	25.50	25.50	25.50	24.00	24.00	24.50	24.50	25.50	25.50	NA
1980..	65.00	73.00	71.00	69.00	60.50	71.50	73.50	69.50	70.00	75.00	74.00	76.00	NA
1982..	63.00	65.00	62.00	61.00	65.00	64.00	68.00	72.00	66.00	69.00	72.00	73.00	NA
1983..	75.00	75.00	72.00	77.00	81.00	77.00	81.00	81.00	82.00	76.00	82.00	84.00	NA
1984..	83.00	82.00	84.00	88.00	86.00	83.00	73.00	71.00	72.00	72.00	74.00	75.00	NA
1985..	75.00	75.00	72.00	72.00	74.00	76.00	75.00	64.00	71.00	67.00	69.00	75.00	NA
1986..	71.00	78.00	70.00	76.00	73.00	71.00	66.00	64.00	62.00	61.00	65.00	63.00	NA
1987..	66.00	67.00	66.00	63.00	59.00	69.00	71.00	66.00	72.00	69.00	70.00	70.00	NA
1988..	74.00	74.00	75.00	74.00	74.00	75.00	75.00	76.00	77.00	79.00	77.00	77.00	NA
						ALL HAY, BALED (Dollars per Ton) 2/							
1950..	21.10	19.20	17.50	17.50	18.30	19.00	21.00	21.50	21.50	22.50	22.50	23.50	22.20
1960..	26.20	26.80	25.70	25.70	25.70	26.00	25.50	25.60	26.40	26.50	27.40	27.80	26.40
1970..	25.00	25.50	25.50	25.00	25.00	25.00	23.50	23.40	23.80	23.90	24.90	24.90	25.00
1980..	63.50	62.00	63.00	65.00	60.00	69.50	71.50	67.50	67.00	73.00	72.00	72.00	70.00
1982..	57.00	57.00	55.00	56.00	60.00	61.00	64.00	67.00	62.00	65.00	68.00	69.00	66.00
1983..	71.00	72.00	69.00	71.00	77.00	71.00	79.00	78.00	76.00	74.00	78.00	79.00	77.00
1984..	78.00	78.00	78.00	82.00	82.00	80.00	72.00	68.00	69.00	70.00	72.00	65.00	70.50
1985..	68.00	68.00	67.00	65.00	68.00	68.00	70.00	60.00	67.00	63.00	64.00	71.00	67.00
1986..	67.00	72.00	67.00	70.00	66.00	67.00	63.00	61.00	59.00	59.00	61.00	60.00	62.50
1987..	63.00	64.00	63.00	60.00	56.00	65.00	66.00	63.00	68.00	64.00	66.00	67.00	67.00
1988..	71.00	70.00	71.00	71.00	71.00	72.00	72.00	73.00	75.00	77.00	75.00	75.00	76.50

1/ Average price relates to mid-month average through 1976. Starting in 1977, it represents an average for the entire month. 2/ Mid-month average price.
NA=Not Available.

UTAH AGRICULTURAL STATISTICS 1989

Average Prices Received by Farmers, Utah, Selected Years

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
COWS (Dollars per Cwt.) 1/													
1950..	Not Available												
1960..	14.00	14.70	16.00	15.70	16.00	14.60	13.10	13.30	13.50	13.10	12.90	13.70	14.10
1970..	20.00	21.50	22.50	21.80	21.30	20.90	20.70	20.10	19.90	18.40	17.70	18.10	20.20
1980..	44.10	46.10	44.90	43.60	40.00	41.60	42.10	43.80	44.80	45.30	42.20	40.90	43.30
1982..	35.10	36.50	37.90	38.90	39.90	38.90	39.70	39.50	39.40	37.20	33.10	31.70	36.90
1983..	34.40	39.60	41.20	40.70	40.70	40.30	38.60	38.50	38.60	34.50	32.90	33.60	38.00
1984..	34.80	37.20	39.90	39.50	38.60	38.40	38.10	37.80	35.90	36.20	32.80	34.70	36.70
1985..	36.70	38.00	37.90	38.30	36.60	34.70	33.50	34.40	32.50	31.80	30.60	31.20	34.30
1986..	32.70	34.30	35.60	31.20	33.60	34.60	33.90	34.80	35.10	34.80	32.90	34.00	34.00
1987..	38.20	41.30	42.80	42.50	43.30	42.90	42.70	43.70	44.10	43.20	41.00	43.70	42.40
1988..	45.20	47.30	47.50	48.00	48.00	44.60	45.30	45.80	44.80	42.40	40.60	40.70	44.70
STEERS & HEIFERS (Dollars per Cwt.) 1/													
1950	Not Available												
1960..	20.50	21.10	22.30	22.40	22.70	21.30	20.60	19.70	19.70	18.80	18.80	20.30	20.60
1970..	27.50	28.70	31.50	28.80	29.00	29.00	28.50	26.80	26.90	26.70	26.90	25.80	27.90
1980..	70.10	70.60	68.10	62.60	61.70	63.00	65.20	65.30	64.70	64.90	63.70	62.70	65.20
1982..	53.70	57.00	59.70	60.00	60.30	59.30	56.10	59.30	56.40	53.70	54.50	52.20	57.10
1983..	55.50	60.00	61.60	60.80	58.70	57.80	53.90	52.30	49.70	49.90	51.90	55.50	57.10
1984..	63.50	63.10	63.60	63.60	61.80	62.10	62.10	60.40	58.50	56.80	58.40	61.10	60.80
1985..	61.30	61.70	57.50	56.70	56.30	55.50	50.80	49.80	50.20	56.20	59.60	57.90	56.00
1986..	56.00	53.90	54.10	52.10	52.50	51.00	55.50	57.20	56.50	56.00	58.00	58.40	55.20
1987..	57.70	60.90	62.00	64.90	66.80	66.50	63.50	64.10	64.30	63.80	64.00	63.80	63.50
1988..	64.20	66.90	68.70	70.70	70.70	67.30	64.70	67.00	67.60	70.60	68.20	69.40	68.40
BEEF CATTLE (Dollars per Cwt.) 1/													
1950..	20.00	20.00	20.50	21.50	23.00	23.00	23.50	24.00	24.00	24.30	25.30	26.20	23.20
1960..	18.10	18.90	20.40	20.30	20.50	18.70	17.50	17.20	17.50	17.20	16.90	18.00	18.40
1970..	25.20	26.30	28.70	26.70	26.70	26.70	25.90	24.60	24.70	24.40	24.60	23.70	25.60
1980..	64.10	65.00	63.20	58.60	57.10	59.40	60.10	60.80	60.50	60.80	57.50	55.90	60.30
1982..	47.40	50.10	54.30	54.50	52.00	49.00	47.20	50.40	51.00	45.30	44.10	42.30	49.10
1983..	45.70	51.60	53.40	53.30	51.00	49.20	45.50	44.60	44.20	44.60	42.00	42.70	48.40
1984..	60.30	60.40	60.60	60.90	59.60	60.40	60.30	59.20	56.80	55.80	55.60	56.60	58.60
1985..	58.40	58.90	55.60	55.30	54.20	53.30	49.70	48.60	48.70	54.40	55.50	53.80	53.90
1986..	52.70	51.90	52.50	51.00	49.70	49.60	54.40	55.90	54.90	54.00	55.00	54.60	53.30
1987..	55.80	59.50	60.90	63.30	64.20	64.70	62.30	62.80	62.40	62.10	61.50	61.80	61.80
1988..	62.70	65.10	66.50	69.30	69.40	65.30	63.50	65.50	66.40	68.60	64.70	66.30	66.50

1/ Mid-month average price through 1979. Prices after 1979 are revised full month prices.

UTAH AGRICULTURAL STATISTICS 1989

Average Prices Received by Farmers, Utah, Selected Years

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
CALVES (Dollars per Cwt.) 1/													
1950..	23.00	24.00	24.80	25.50	26.50	26.00	27.00	27.00	27.50	28.00	29.00	29.50	26.80
1960..	24.00	25.00	25.20	25.80	26.00	23.50	22.00	20.50	21.30	22.50	22.30	23.50	23.40
1970..	35.00	37.20	38.00	34.50	34.40	34.90	33.00	31.00	31.70	33.00	32.60	33.30	34.20
1980..	82.00	85.50	83.30	72.60	72.20	77.20	77.70	75.10	72.70	75.70	71.50	73.20	75.50
1982..	55.70	59.30	61.10	61.00	63.90	62.90	59.00	62.70	64.00	62.30	56.30	56.50	59.70
1983..	60.20	63.80	66.40	67.30	62.40	65.00	60.30	60.00	55.50	56.40	59.80	60.50	62.40
1984..	58.50	63.30	63.20	62.40	59.00	58.90	55.70	58.50	59.30	60.50	60.80	60.40	60.70
1985..	63.50	68.00	67.10	64.20	63.90	62.50	58.20	57.30	56.70	61.00	61.20	59.50	61.90
1986..	62.00	65.20	64.00	56.20	54.10	54.80	55.60	59.40	61.00	62.70	63.00	63.90	62.10
1987..	66.50	70.50	72.60	74.60	74.40	72.50	77.20	80.00	85.70	84.80	81.80	84.00	79.40
1988..	85.80	89.00	92.50	89.90	92.10	84.60	79.10	86.00	93.40	95.80	86.50	86.20	91.50
MILK COWS (Dollars per Head) 2/3/													
1950..	200	200	200	200	205	210	210	210	215	225	225	230	N/A
1960..	220	220	220	225	225	235	225	225	215	205	205	215	220
1970..	320	320	330	330	330	330	325	315	310	320	340	320	324
1980..	1160	1190	1220	1220	1200	1200	1190	1210	1210	1220	1220	1220	1210
1982..	1160			1130			1120			1100			1130
1983..	1050			1030			1030			950			1020
1984..	820			840			870			850			845
1985..	840			870			830			800			835
1986..	780			770			780			800			785
1987..	810			900			900			980			900
1988..	980			1050			1030			1000			1020

1/ Mid-month average price through 1979. Prices after 1979 are revised full month prices. 2/ Mid-month average price. 3/ Published only by quarters starting 1982.

Average Prices Received by Farmers, Utah, Selected Years

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
MILK, ALL (Dollars per Cwt.) 1/													
1950..	4.00	3.90	3.65	3.50	3.30	3.30	3.35	3.60	3.75	4.00	4.15	4.15	3.69
1960..	4.25	4.15	4.05	3.95	3.85	3.80	3.80	3.95	4.20	4.25	4.35	4.40	4.07
1970..	5.70	5.55	5.40	5.45	5.35	5.20	5.20	5.30	5.55	5.65	5.80	5.80	5.48
1980..	12.40	12.30	12.30	12.20	12.10	12.20	12.00	12.10	12.70	13.00	13.30	13.50	12.50
1982..	13.50	13.30	13.00	12.80	12.60	12.40	12.20	12.50	12.70	13.20	13.40	13.50	12.90
1983..	13.20	13.00	12.90	12.90	12.70	12.40	12.30	12.40	12.80	13.20	13.30	13.40	12.90
1984..	13.40	13.10	12.80	12.60	12.40	12.20	12.20	12.50	12.90	13.50	13.80	13.70	12.90
1985..	13.50	13.20	13.00	12.50	12.00	11.30	11.10	11.20	11.60	11.90	12.10	12.30	12.00
1986..	12.10	11.80	11.40	11.60	11.30	11.20	11.10	11.40	12.00	12.60	12.80	12.70	11.80
1987..	12.70	12.30	12.00	11.70	11.40	11.40	11.40	11.70	12.10	12.00	12.20	12.30	11.90
1988..	12.10	11.80	11.50	11.20	10.80	10.50	10.80	11.20	11.90	12.40	12.60	13.00	11.60
MILK, ELIGIBLE FOR FLUID MARKET (Dollars per Cwt.) 1/ 2/													
1950..	4.90	4.85	4.55	4.25	4.15	4.15	4.20	4.60	4.80	5.05	5.15	5.20	4.64
1960..	4.75	4.70	4.60	4.50	4.35	4.30	4.30	4.45	4.70	4.75	4.85	4.85	4.59
1970..	6.10	5.90	5.75	5.90	5.75	5.60	5.60	5.70	5.95	6.05	6.25	6.25	5.90
1980..	12.70	12.50	12.50	12.40	12.30	12.40	12.20	12.40	12.90	13.30	13.60	13.90	12.70
1982..	13.70	13.60	13.30	13.20	12.90	12.80	12.70	12.80	13.00	13.40	13.60	13.70	13.20
1983..	13.50	13.30	13.20	13.30	13.00	12.80	12.60	12.80	13.30	13.50	13.60	13.60	13.20
1984..	13.60	13.30	13.00	13.00	12.80	12.50	12.60	12.80	13.20	13.70	14.10	14.00	13.20
1985..	13.90	13.60	13.30	12.80	12.20	11.50	11.30	11.40	11.70	12.00	12.20	12.40	12.20
1986..	12.20	11.90	11.60	11.80	11.50	11.30	11.30	11.60	12.20	12.80	13.00	12.90	12.00
1987..	12.90	12.50	12.20	11.90	11.60	11.60	11.60	11.90	12.50	12.30	12.40	12.50	12.10
1988..	12.40	12.10	11.70	11.50	11.00	10.70	11.00	11.40	12.00	12.50	12.80	13.20	11.80
MILK, MANUFACTURING GRADE (Dollars per Cwt.) 1/													
1950..	3.25	3.15	3.00	2.90	2.75	2.75	2.75	2.85	2.90	3.05	3.15	3.25	2.95
1960..	3.25	3.15	3.05	3.00	2.95	2.90	2.85	2.95	3.10	3.20	3.25	3.35	3.07
1970..	4.70	4.65	4.60	4.50	4.45	4.40	4.35	4.40	4.55	4.65	4.75	4.80	4.56
1980..	11.80	11.70	11.70	11.70	11.60	11.70	11.40	11.50	12.20	12.40	12.50	12.60	11.90
1982..	13.00	12.80	12.50	12.10	12.00	11.70	11.20	11.80	12.20	12.80	12.90	13.00	12.30
1983..	12.60	12.30	12.20	12.10	12.20	11.70	11.70	11.80	12.00	12.60	12.90	12.90	12.20
1984..	13.10	12.70	12.30	12.00	11.80	11.60	11.60	11.90	12.40	13.00	13.10	13.10	12.30
1985..	12.50	12.20	12.10	11.60	11.30	10.70	10.70	10.80	11.30	11.50	11.70	11.80	11.50
1986..	11.60	11.30	10.90	10.80	10.60	10.70	10.50	10.70	11.00	11.50	11.80	12.00	11.10
1987..	11.70	11.10	10.90	10.80	10.50	10.50	10.50	10.70	10.70	11.00	11.10	11.30	10.90
1988..	11.00	10.60	10.50	10.20	10.10	9.90	10.00	10.70	11.40	11.90	11.90	12.10	10.90

1/ Average for the month. 2/ Includes surplus diverted to manufacturing.

Average Prices Received by Farmers, Utah, Selected Years

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Mktg. Year Average
SHEEP (Dollars per Cwt.) 1/													
1950..	8.60	8.60	9.30	9.50	9.00	8.50	9.00	9.00	11.00	11.50	12.00	12.50	10.60
1960..	6.50	7.00	7.00	7.00	6.50	6.50	5.50	5.00	4.50	4.80	4.50	5.00	5.30
1970..	7.60	7.60	7.70	8.20	7.50	8.30	8.50	8.00	7.50	6.50	6.00	6.00	7.10
1980..	17.80	16.40	21.90	16.90	14.60	15.50	16.60	16.30	15.90	14.90	15.10	14.40	16.50
1982..	18.50	23.20	23.80	21.30	16.80	22.30	17.80	16.40	15.00	14.60	14.30	14.60	16.70
1983..	17.30	22.50	20.00	18.00	16.40	11.70	12.90	14.00	14.50	12.00	11.40	14.00	14.50
1984..	14.60	17.20	14.80	14.80	13.70	13.20	13.40	14.30	14.60	11.50	14.20	20.50	14.10
1985..	21.00	19.30	19.90	25.10	17.20	16.00	16.70	19.10	22.40	16.30	16.60	21.90	18.50
1986..	23.60	28.30	27.00	20.50	16.50	17.00	19.90	21.50	24.10	17.40	21.10	26.10	21.30
1987..	23.30	22.40	24.50	20.40	17.50	18.80	17.90	21.70	24.10	21.20	20.80	22.80	21.40
1988..	28.00	24.70	24.80	19.00	17.40	18.50	20.70	19.70	17.00	19.20	19.80	25.30	20.00
LAMBS (Dollars per Cwt.) 1/													
1950..	21.30	22.00	22.40	23.00	23.30	24.00	24.00	24.00	25.50	25.50	26.70	27.00	24.90
1960..	17.80	18.30	20.00	20.00	20.00	19.50	17.80	16.70	16.10	15.20	15.20	16.20	17.00
1970..	28.00	27.50	27.00	26.00	25.50	26.00	26.00	26.20	25.80	25.00	23.30	21.50	25.40
1980..	63.20	59.10	60.70	55.00	51.60	63.10	64.10	63.00	66.20	66.60	56.80	53.80	61.60
1982..	48.50	49.10	52.60	55.60	59.70	59.90	50.60	48.70	48.80	46.40	43.60	47.00	49.90
1983..	49.80	56.00	57.00	57.60	57.30	51.60	47.90	43.80	43.70	46.90	51.00	53.30	49.80
1984..	54.80	54.00	54.80	54.50	60.60	54.10	56.40	57.50	59.70	59.40	59.20	59.60	57.70
1985..	59.00	61.00	63.30	59.50	57.50	66.00	67.50	66.90	69.30	66.40	58.70	55.60	65.70
1986..	62.90	66.30	63.40	64.00	69.50	69.40	66.20	66.00	65.00	63.80	68.30	70.50	65.30
1987..	72.30	70.30	75.10	71.20	75.70	76.80	74.80	72.30	72.10	69.50	68.80	69.10	71.60
1988..	81.00	77.80	64.30	61.90	67.00	58.10	55.40	54.30	58.50	61.80	62.30	63.30	61.50.
WOOL (Dollars per Pound) 2/													
1950..	.51	.51	.54	.54	.54	.57	.59	.61	.63	.66	.72	.80	.58
1960..	.44	.47	.42	.44	.44	.44	.39	.40	.36	.35	.37	.37	.39
1970..	.40	.35	.36	.36	.34	.37	.36	.33	.35	.32	.29	.26	.32
1980..	--	.84	.98	.90	.80	.83	.87	.98	.98	.93	.94	.96	.90
1982..	.72	.79	.74	.80	.76	.66	.77	.66	.70	.58	.54	.57	.68
1983..	3/	.46	.50	.54	.55	.56	.57	.58	.64	.67	.63	.65	.57
1984..	.62	.60	.76	.85	.90	.89	.80	.87	.66	.89	.80	.71	.84
1985..	.59	.60	.59	.61	.62	.61	.62	.57	.59	.53	.61	.59	.61
1986..	.47	.62	.59	.66	.66	.68	.68	.66	.67	.64	.67	.67	.66
1987..	.41	.66	.78	.93	.98	.95	.94	.91	.88	.71	.61	.94	.93
1988..	.99	1.20	1.40	1.40	1.38	1.34	1.37	1.42	1.31	3/	.99	1.12	1.36

1/ Mid-month average price through 1979. Prices after 1979 are revised full month prices. 2/ Average for the month. 3/ Insufficient sales..

COUNTY ESTIMATES

County estimates add another dimension to agricultural estimates. State estimates provide data for comparison with other states. County estimates provide data to compare production in the various areas within Utah. Crop county estimates play a major role in Federal Farm Program payments and Crop Insurance settlements; thus, directly effecting many farmers and ranchers. A cooperative agreement between Utah State Department of Agriculture and the Utah Agriculture Statistics Service, U.S.D.A., provides funding in support of the county estimates contained in this publication.

Box Elder County is "Number one" in both acres planted to grain and grain produced. Box Elder leads in wheat, barley, and corn for grain. Cache County is the second largest grain producer, followed by Utah, Millard, and Sanpete Counties.

Wheat production is dominated by Box Elder County, followed by Millard, Cache, Utah, and San Juan Counties.

Corn is grown in all but three of Utah's counties. Utah and Box Elder Counties together account for 38 percent of planted acres. Box Elder leads in production of grain corn, followed by Utah, Millard, Davis and Weber Counties. Utah County is first in silage production, followed by Box Elder, Cache, Sevier, and Weber Counties.

Box Elder leads all counties in 1988 for barley production. Cache County was second, followed by Utah, Millard, Sanpete, and Sevier Counties.

Duchesne County was tops in oats production. Cache County was second, followed by Uintah, Emery, Utah, and Juab Counties.

Cache County continues as the "Number one" dairy county, with over twice the number in Box Elder which ranked in second place. Utah County was third, followed by Weber and Sanpete Counties. Box Elder County is "Number one" in beef cows, followed by Rich, Duchesne, Uintah, Utah, and Millard Counties.

Sheep can be found in all counties, but Sanpete County has the most. Iron County is second, followed by Utah, Summit, and Box Elder Counties.

County Estimates for All Wheat--1988

County	Acres Planted	Acres Harvested For Grain	Yield Per Harvested Acre	Production
			Bushels	Bushels
NORTHERN				
Box Elder........	66,900	65,000	42.0	2,730,200
Cache............	17,000	16,100	39.1	629,000
Davis............	3,500	3,500	73.4	257,000
Morgan...........	900	800	44.4	35,500
Rich.............	4,000	3,900	25.5	99,500
Salt Lake........	10,200	9,800	23.2	227,400
Tooele...........	3,200	3,200	34.1	109,000
Weber............	4,100	3,900	81.8	319,000
Total............	109,800	106,200	41.5	4,406,600
CENTRAL				
Juab.............	7,900	7,500	29.6	222,000
Millard..........	13,200	12,500	51.0	637,600
Sanpete..........	2,300	2,100	65.5	137,500
Sevier...........	700	700	71.3	49,900
Utah.............	18,000	17,400	28.3	493,200
Total............	42,100	40,200	38.3	1,540,200
EASTERN				
Carbon...........	*	*	*	*
Daggett..........	*	*	*	*
Duchesne.........	1,300	1,200	67.5	81,000
Emery............	900	700	57.1	40,000
Grand............	*	*	*	*
San Juan.........	25,000	24,000	20.3	488,000
Summit...........	*	*	*	*
Uintah...........	1,000	900	28.9	26,000
Wasatch..........	*	*	*	*
Other............	900	900	51.9	46,700
Total............	29,100	27,700	24.6	681,700
SOUTHERN				
Beaver........	*	*	*	*
Garfield.........	500	500	60.0	30,000
Iron.............	700	700	66.4	46,500
Kane.............	*	*	*	*
Piute............	*	*	*	*
Washington.......	1,500	1,400	31.8	44,500
Wayne............	*	*	*	*
Other............	300	300	61.7	18,500
Total............	3,000	2,900	48.1	139,500
STATE............	184,000	177,000	38.2	6,768,000

*Less than 500 planted acres, combined with other counties.

All Wheat by Cropping Practice by County—1988 Crop

County and District	Irrigated				Not Irrigated			
	Acreage		Harvested Yield	Production	Acreage		Harvested Yield	Production
	Planted	Harvested			Planted	Harvested		
	Acres		Bushels		Acres		Bushels	
NORTHERN								
Box Elder	19,300	17,900	89.4	1,600,900	47,600	47,100	24.0	1,129,300
Cache	5,000	4,500	70.4	316,600	12,000	11,600	26.9	312,400
Davis	2,800	2,800	87.5	245,000	700	700	17.1	12,000
Morgan	300	300	72.7	21,800	600	500	27.4	13,700
Rich	300	300	77.3	23,200	3,700	3,600	21.2	76,300
Salt Lake	1,300	1,300	68.3	88,800	8,900	8,500	16.3	138,600
Tooele	1,500	1,500	57.5	86,300	1,700	1,700	13.4	22,700
Weber	4,000	3,800	83.0	315,300	100	100	37.0	3,700
Total	34,500	32,400	83.3	2,697,900	75,300	73,800	23.2	1,708,700
CENTRAL								
Juab	2,100	2,000	64.3	128,600	5,800	5,500	17.0	93,400
Millard	7,500	7,000	80.6	564,500	5,700	5,500	13.3	73,100
Sanpete	2,300	2,100	65.5	137,500	0			
Sevier	700	700	71.3	49,900	0			
Utah	3,200	3,200	92.1	285,500	14,800	14,300	14.5	207,700
Total	15,800	14,900	78.3	1,166,000	26,300	25,300	14.8	374,200
EASTERN								
Carbon	*	*	*	*	*	*	*	*
Daggett	*	*	*	*	*	*	*	*
Duchesne	1,300	1,200	67.5	81,000	0			
Emery	900	700	57.1	40,000	0			
Grand	*	*	*	*	*	*	*	*
San Juan	600	500	67.4	33,700	24,400	23,500	19.3	454,300
Summit	*	*	*	*	*	*	*	*
Uintah	400	300	60.0	18,000	600	600	13.3	8,000
Wasatch	*	*	*	*	*	*	*	*
Other	700	700	60.4	42,300	200	200	22.0	4,400
Total	3,900	3,400	63.2	215,000	25,200	24,300	19.2	466,700
SOUTHERN								
Beaver	*	*	*	*	*	*	*	*
Garfield	400	400	66.3	26,500	100	100	35.0	3,500
Iron	500	500	78.0	39,000	200	200	37.5	7,500
Kane	*	*	*	*	*	*	*	*
Piute	*	*	*	*	*	*	*	*
Washington	500	400	56.3	22,500	1,000	1,000	22.0	22,000
Wayne	*	*	*	*	*	*	*	*
Other	300	300	61.7	18,500	0			
Total	1,700	1,600	66.6	106,500	1,300	1,300	25.4	33,000
STATE	55,900	52,300	80.0	4,185,400	128,100	124,700	20.7	2,582,600

*Less than 500 acres planted for all cropping practices, combined with other counties.

County Estimates for Winter Wheat--1988

County	Acres Planted	Acres Harvested For Grain	Yield Per Harvested Acre	Production
			Bushels	Bushels
NORTHERN				
Box Elder	63,000	61,400	41.2	2,532,700
Cache	13,000	12,600	36.7	463,000
Davis	2,500	2,500	72.0	180,000
Morgan	300	300	46.7	14,000
Rich	3,200	3,100	24.8	77,000
Salt Lake	9,000	8,700	20.3	176,500
Tooele	2,500	2,500	29.2	73,000
Weber	3,000	2,900	84.1	243,800
Total	96,500	94,000	40.0	3,760,000
CENTRAL				
Juab	7,300	7,000	28.9	202,000
Millard	11,000	10,500	46.1	484,000
Sanpete	700	600	76.7	46,000
Sevier	500	500	76.0	38,000
Utah	16,500	16,000	25.6	410,000
Total	36,000	34,600	34.1	1,180,000
EASTERN				
Carbon	*	*	*	*
Daggett	*	*	*	*
Duchesne	300	300	73.3	22,000
Emery	300	300	63.3	19,000
Grand	*	*	*	*
San Juan	24,100	23,100	20.5	473,000
Summit	*	*	*	*
Uintah	0	0	0	0
Wasatch	*	*	*	*
Other	300	300	53.3	16,000
Total	25,000	24,000	22.1	530,000
SOUTHERN				
Beaver	*	*	*	*
Garfield	300	300	63.3	19,000
Iron	600	600	68.3	41,000
Kane	*	*	*	*
Piute	*	*	*	*
Washington	1,500	1,400	31.8	44,500
Wayne	*	*	*	*
Other	100	100	55.0	5,500
Total	2,500	2,400	45.8	110,000
STATE	160,000	155,000	36.0	5,580,000

*Less than 500 planted acres of all wheat, combined with other counties.

County Estimates for Spring Wheat—1988

County	Acres Planted	Acres Harvested For Grain	Yield Per Harvested Acre	Production
			Bushels	Bushels
NORTHERN				
Box Elder........	3,900	3,600	54.9	197,500
Cache............	4,000	3,500	47.4	166,000
Davis............	1,000	1,000	77.0	77,000
Morgan...........	600	500	43.0	21,500
Rich.............	800	800	28.1	22,500
Salt Lake........	1,200	1,100	46.3	50,900
Tooele...........	700	700	51.4	36,000
Weber............	1,100	1,000	75.2	75,200
Total............	13,300	12,200	53.0	646,600
CENTRAL				
Juab.............	600	500	40.0	20,000
Millard..........	2,200	2,000	76.8	153,600
Sanpete..........	1,600	1,500	61.0	91,500
Sevier...........	200	200	59.5	11,900
Utah.............	1,500	1,400	59.4	83,200
Total............	6,100	5,600	64.3	360,200
EASTERN				
Carbon...........	*	*	*	*
Daggett..........	*	*	*	*
Duchesne.........	1,000	900	65.6	59,000
Emery............	600	400	52.5	21,000
Grand............	*	*	*	*
San Juan.........	900	900	16.7	15,000
Summit...........	*	*	*	*
Uintah...........	1,000	900	28.9	26,000
Wasatch..........	*	*	*	*
Other............	600	600	51.2	30,700
Total............	4,100	3,700	41.0	151,700
SOUTHERN				
Beaver...........	*	*	*	*
Garfield.........	200	200	55.0	11,000
Iron.............	100	100	55.0	5,500
Kane.............	*	*	*	*
Piute............	*	*	*	*
Washington.......	0	0	0	0
Wayne............	*	*	*	*
Other............	200	200	65.0	13,000
Total............	500	500	59.0	29,500
STATE............	24,000	22,000	54.0	1,188,000

*Less than 500 planted acres of all wheat, combined with other counties.

County Estimates for Barley--1988

County	Acres Planted	Acres Harvested For Grain	Yield Per Harvested Acre	Production
			Bushels	Bushels
NORTHERN				
Box Elder........	26,800	24,500	79.0	1,935,000
Cache............	26,600	23,800	65.8	1,565,100
Davis............	1,900	1,700	82.1	139,600
Morgan...........	1,600	1,500	70.7	106,100
Rich.............	2,100	1,900	52.8	100,300
Salt Lake........	2,200	2,000	72.1	144,100
Tooele...........	2,500	2,300	80.7	185,600
Weber............	3,500	3,300	75.5	249,200
Total............	67,200	61,000	72.5	4,425,000
CENTRAL				
Juab.............	3,100	3,000	65.4	196,100
Millard..........	16,400	14,100	84.9	1,197,300
Sanpete..........	8,000	7,400	77.0	570,000
Sevier...........	6,200	5,900	80.8	476,600
Utah.............	16,100	15,600	87.2	1,360,000
Total............	49,800	46,000	82.6	3,800,000
EASTERN				
Carbon...........	*	*	*	*
Daggett..........	*	*	*	*
Duchesne.........	3,100	2,900	79.3	230,000
Emery............	1,000	1,000	55.0	55,000
Grand............	*	*	*	*
San Juan.........	900	700	36.4	25,500
Summit...........	900	700	81.4	57,000
Uintah...........	1,400	1,200	66.7	80,000
Wasatch..........	1,200	1,100	65.5	72,000
Other............	300	300	68.3	20,500
Total............	8,800	7,900	68.4	540,000
SOUTHERN				
Beaver...........	1,900	1,400	76.4	107,000
Garfield.........	500	400	70.0	28,000
Iron.............	5,600	4,700	89.7	421,500
Kane.............	*	*	*	*
Piute............	*	*	*	*
Washington.......	2,800	1,800	81.9	147,500
Wayne............	1,900	1,400	90.0	126,000
Other............	500	400	75.0	30,000
Total............	13,200	10,100	85.1	860,000
STATE............	139,000	125,000	77.0	9,625,000

*Less than 500 planted acres, combined with other counties.

All Barley by Cropping Practice by County—1988 Crop

County and District	Irrigated				Not Irrigated			
	Acreage		Harvested Yield	Production	Acreage		Harvested Yield	Production
	Planted	Harvested			Planted	Harvested		
	Acres		Bushels		Acres		Bushels	
NORTHERN								
Box Elder........	22,800	21,400	87.3	1,868,000	4,000	3,100	21.6	67,000
Cache............	20,500	18,900	76.7	1,450,000	6,100	4,900	23.5	115,100
Davis............	1,700	1,600	85.6	137,000	200	100	26.0	2,600
Morgan...........	1,500	1,400	74.3	104,000	100	100	21.0	2,100
Rich.............	1,700	1,600	58.8	94,000	400	300	21.0	6,300
Salt Lake........	2,000	1,900	74.7	142,000	200	100	21.0	2,100
Tooele...........	2,200	2,100	86.7	182,000	300	200	18.0	3,600
Weber............	3,200	3,100	78.4	243,000	300	200	31.0	6,200
Total............	55,600	52,000	81.2	4,220,000	11,600	9,000	22.8	205,000
CENTRAL								
Juab.............	2,800	2,800	68.9	193,000	300	200	15.5	3,100
Millard..........	16,300	14,000	85.4	1,195,800	100	100	15.0	1,500
Sanpete..........	8,000	7,400	77.0	570,000	0			
Sevier...........	6,100	5,800	81.9	475,200	100	100	14.0	1,400
Utah.............	15,300	15,000	90.1	1,351,000	800	600	15.0	9,000
Total............	48,500	45,000	84.1	3,785,000	1,300	1,000	15.0	15,000
EASTERN								
Carbon...........	*	*	*	*	*	*	*	*
Daggett..........	*	*	*	*	*	*	*	*
Duchesne.........	3,100	2,900	79.3	230,000	0			
Emery............	1,000	1,000	55.0	55,000	0			
Grand............	*	*	*	*	*	*	*	*
San Juan.........	200	200	72.5	14,500	700	500	22.0	11,000
Summit...........	700	600	89.2	53,500	200	100	35.0	3,500
Uintah...........	1,400	1,200	66.7	80,000	0			
Wasatch..........	1,200	1,100	65.5	72,000	0			
Other............	300	300	68.3	20,500	0			
Total............	7,900	7,300	72.0	525,500	900	600	24.2	14,500
SOUTHERN								
Beaver...........	1,900	1,400	76.4	107,000	0			
Garfield.........	500	400	70.0	28,000	0			
Iron.............	5,400	4,600	91.2	419,500	200	100	20.0	2,000
Kane.............	*	*	*	*	*	*	*	*
Piute............	*	*	*	*	*	*	*	*
Washington.......	2,600	1,700	85.3	145,000	200	100	25.0	2,500
Wayne............	1,900	1,400	90.0	126,000	0			
Other............	500	400	75.0	30,000	0			
Total............	12,800	9,900	86.4	855,500	400	200	22.5	4,500
STATE............	124,800	114,200	82.2	9,386,000	14,200	10,800	22.1	239,000

*Less than 500 acres planted for all cropping practices combined with other counties.

UTAH AGRICULTURAL STATISTICS 1989

County Estimates for Corn—1988.

County	Acres Planted All Purposes	Corn for Grain			Corn for Silage		
		Acres Harvested	Yield	Production	Acres Harvested	Yield	Production
		Bushels	Bushels		Tons	Tons	
NORTHERN							
Box Elder.........	12,700	5,900	131.9	778,500	6,700	22.5	151,000
Cache.............	6,100	500	116.0	58,000	5,550	18.9	105,000
Davis.............	4,700	2,300	130.0	299,000	2,400	22.5	54,000
Morgan............	*	*	*	*	*	*	*
Rich..............	*	*	*	*	*	*	*
Salt Lake.........	1,300	400	130.0	52,000	900	21.1	19,000
Tooele............	*	*	*	*	*	*	*
Weber.............	5,200	1,000	128.0	128,000	4,150	21.4	89,000
Other.............	700	100	125.0	12,500	600	20.0	12,000
Total.............	30,700	10,200	130.2	1,328,000	20,300	21.2	430,000
CENTRAL							
Juab..............	600	100	95.0	9,500	500	16.0	8,000
Millard...........	5,500	3,500	127.1	445,000	1,850	20.5	38,000
Sanpete...........	1,700	0			1,700	18.2	31,000
Sevier............	5,900	500	121.0	60,500	5,350	19.4	104,000
Utah..............	14,000	4,700	124.5	585,000	9,300	19.2	179,000
Other.............	*	*	*	*	*	*	*
Total.............	27,700	8,800	125.0	1,100,000	18,700	19.3	360,000
EASTERN							
Carbon............	500	100	96.0	9,600	400	19.0	7,600
Daggett...........	*	*	*	*	*	*	*
Duchesne..........	2,100	800	110.0	88,000	1,300	19.7	25,600
Emery.............	1,300	400	110.0	44,000	600	20.0	12,000
Grand.............	*	*	*	*	*	*	*
San Juan..........	*	*	*	*	*	*	*
Summit............	*	*	*	*	*	*	*
Uintah............	3,800	1,000	86.0	86,000	2,700	18.1	49,000
Wasatch...........	*	*	*	*	*	*	*
Other.............	800	500	104.8	52,400	200	19.0	3,800
Total.............	8,500	2,800	100.0	280,000	5,200	18.8	98,000
SOUTHERN							
Beaver............	1,300	100	100.0	10,000	1,200	19.6	23,500
Garfield..........	*	*	*	*	*	*	*
Iron..............	1,000	100	100.0	10,000	800	19.1	15,300
Kane..............	*	*	*	*	*	*	*
Piute.............	*	*	*	*	*	*	*
Washington........	*	*	*	*	*	*	*
Wayne.............	*	*	*	*	*	*	*
Other.............	800				800	16.5	13,200
Total.............	3,100	200	100.0	20,000	2,800	18.6	52,000
STATE.............	70,000	22,000	124.0	2,728,000	47,000	20.0	940,000

*Less than 500 acres planted for all purposes, combined with other counties.

County Estimates for Oats--1988

County	Acres Planted	Acres Harvested For Grain	Yield Per Harvested Acre	Production
			Bushels	Bushels
NORTHERN				
Box Elder	1,300	600	81.7	49,000
Cache	1,800	1,400	80.4	112,500
Davis	1/			
Morgan	1/			
Rich	1/			
Salt Lake	500	200	75.0	15,000
Tooele	500	200	62.5	12,500
Weber	800	300	93.3	28,000
CENTRAL				
Juab	1/			
Millard	2,100	900	68.0	61,200
Sanpete	1,700	600	63.3	38,000
Sevier	1,600	500	74.0	37,000
Utah	1,700	900	71.7	64,500
EASTERN				
Carbon	600	200	100.0	20,000
Daggett	1/			
Duchesne	2,800	1,400	82.1	115,000
Emery	1,600	1,100	66.4	73,000
Grand	1/			
San Juan	1,100	1,000	35.0	35,000
Summit	600	300	70.0	21,000
Uintah	1,700	1,200	65.4	78,500
Wasatch	500	100	100.0	10,000
SOUTHERN				
Beaver	2,400	400	77.5	31,000
Garfield	1,500	500	80.0	40,000
Iron	2,000	400	87.5	35,000
Kane	500	100	60.0	6,000
Piute	800	200	80.0	16,000
Washington	800	100	70.0	7,000
Wayne	1,500	500	78.0	39,000
Other Counties	1,600	900	70.9	63,800
STATE	32,000	14,000	72.0	1,008,000

1/ Acreage planted for county less than 500 acres. All estimates included in other counties.

UTAH AGRICULTURAL STATISTICS 1989

County Estimates for All Hay--1988.

County	Acres Harvested	Yield per Acre	Production
		Tons	Tons
NORTHERN			
Box Elder	49,800	3.44	171,400
Cache	57,900	3.31	191,700
Davis	9,400	3.37	31,700
Morgan	7,700	3.01	23,200
Rich	44,000	1.94	85,500
Salt Lake	9,500	3.82	36,300
Tooele	15,000	3.35	50,200
Weber	14,700	3.69	54,300
Total	208,000	3.10	644,300
CENTRAL			
Juab	14,500	2.72	39,400
Millard	59,000	4.34	256,200
Sanpete	39,900	3.45	137,600
Sevier	21,600	4.19	90,600
Utah	33,000	3.88	128,200
Total	168,000	3.88	652,000
EASTERN			
Carbon	6,800	2.94	20,000
Daggett	4,600	2.09	9,600
Duchesne	41,100	3.18	130,500
Emery	15,000	3.09	46,300
Grand	1,900	3.89	7,400
San Juan	5,800	2.40	13,900
Summit	20,500	2.59	53,000
Uintah	29,900	3.80	113,700
Wasatch	11,400	3.30	37,600
Total	137,000	3.15	432,000
SOUTHERN			
Beaver	26,600	3.86	102,600
Garfield	11,300	3.16	35,700
Iron	39,200	4.34	170,000
Kane	2,800	3.29	9,200
Piute	10,500	2.56	26,900
Washington	7,200	4.42	31,800
Wayne	9,400	3.56	33,500
Total	107,000	3.83	409,700
STATE	620,000	3.45	2,138,000

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UTAH AGRICULTURAL STATISTICS 1989

County Estimates for Alfalfa Hay--1988.

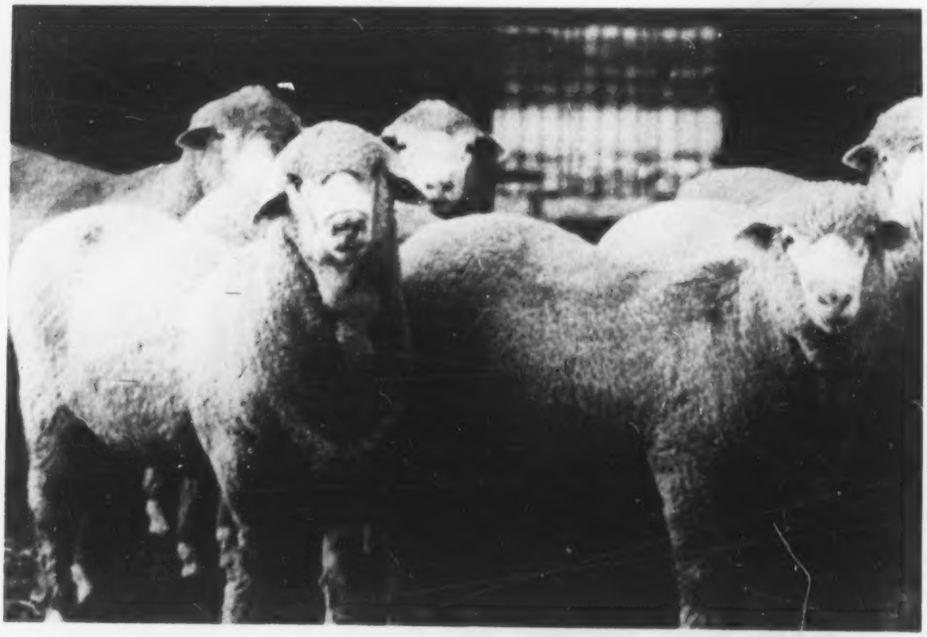
County	Acres Harvested	Yield per Acre	Production
		Tons	Tons
NORTHERN			
Box Elder	42,700	3.75	160,000
Cache	51,400	3.50	180,000
Davis	6,400	4.06	26,000
Morgan	6,000	3.33	20,000
Rich	10,000	3.10	31,000
Salt Lake	7,600	4.14	31,500
Tooele	12,700	3.66	46,500
Weber	12,200	4.02	49,000
Total	149,000	3.65	544,000
CENTRAL			
Juab	11,000	3.05	33,500
Millard	55,000	4.51	248,000
Sanpete	27,500	4.11	113,000
Sevier	19,000	4.50	85,500
Utah	25,500	4.43	113,000
Total	138,000	4.30	593,000
EASTERN			
Carbon	6,000	3.10	18,600
Daggett	1,900	3.00	5,700
Duchesne	28,600	3.60	103,000
Emery	12,000	3.33	40,000
Grand	1,700	4.12	7,000
San Juan	5,000	2.50	12,500
Summit	12,000	3.00	36,000
Uintah	25,500	4.15	105,800
Wasatch	9,300	3.59	33,400
Total	102,000	3.55	362,000
SOUTHERN			
Beaver	23,000	4.09	94,000
Garfield	9,000	3.33	30,000
Iron	36,900	4.43	163,500
Kane	1,900	4.00	7,600
Piute	6,000	3.08	18,500
Washington	6,000	4.80	28,800
Wayne	8,200	3.73	30,600
Total	91,000	4.10	373,000
STATE	480,000	3.90	1,872,000

County Estimates for Other Hay--1988.

County	Acres Harvested	Yield per Acre	Production
		Tons	Tons
NORTHERN			
Box Elder	7,100	1.61	11,400
Cache	6,500	1.80	11,700
Davis	3,000	1.90	5,700
Morgan	1,700	1.88	3,200
Rich	34,000	1.60	54,500
Salt Lake	1,900	2.53	4,800
Tooele	2,300	1.61	3,700
Weber	2,500	2.12	5,300
Total	59,000	1.70	100,300
CENTRAL			
Juab	3,500	1.69	5,900
Millard	4,000	2.05	8,200
Sanpete	12,400	1.98	24,600
Sevier	2,600	1.96	5,100
Utah	7,500	2.03	15,200
Total	30,000	1.97	59,000
EASTERN			
Carbon	800	1.75	1,400
Daggett	2,700	1.44	3,900
Duchesne	12,500	2.20	27,500
Emery	3,000	2.10	6,300
Grand	200	2.00	400
San Juan	800	1.75	1,400
Summit	8,500	2.00	17,000
Uintah	4,400	1.80	7,900
Wasatch	2,100	2.00	4,200
Total	35,000	2.00	70,000
SOUTHERN			
Beaver	3,600	2.39	8,600
Garfield	2,300	2.48	5,700
Iron	2,300	2.83	6,500
Kane	900	1.78	1,600
Piute	4,500	1.87	8,400
Washington	1,200	2.50	3,000
Wayne	1,200	2.42	2,900
Total	16,000	2.29	36,700
STATE	140,000	1.90	266,000

County Estimates for Potatoes--1987 and 1988.

County	Acres Harvested		Yield per Acre		Production	
	1987	1988	1987	1988	1987	1988
			- - Cwt. - -		- - Cwt. - -	
Davis	700	800	317	310	222,000	248,000
Millard	1,050	1,200	278	283	292,000	340,000
Iron & Washington	4,320	4,300	220	225	951,000	969,000
Other Counties	530	300	225	200	119,000	60,000
STATE TOTAL	6,600	6,600	240	245	1,584,000	1,617,000



UTAH AGRICULTURAL STATISTICS 1989

COUNTY ESTIMATES FOR CATTLE JANUARY 1, 1988-89.

County	All Cattle		All Cows		Beef Cows		Milk Cows	
	1988	1989	1988	1989	1988	1989	1988	1989
NORTHERN								
Box Elder..........	70,000	71,000	37,100	37,500	28,300	28,500	8,800	9,000
Cache..............	58,000	60,100	24,500	25,100	6,100	5,900	18,400	19,200
Davis..............	21,000	20,500	6,800	6,500	5,500	5,300	1,300	1,200
Morgan.............	8,000	8,300	4,200	4,300	2,900	2,900	1,300	1,400
Rich...............	40,000	41,600	1/25,500	1/25,400	25,500	25,400	2/	2/
Salt Lake..........	13,000	12,500	5,600	5,300	3,600	3,500	2,000	1,800
Tooele.............	22,000	22,000	1/15,000	1/14,800	15,000	14,800	2/	2/
Weber..............	29,000	27,000	11,900	11,800	5,400	5,200	6,500	6,600
Total..............	261,000	263,000	130,600	130,700	92,300	91,500	38,300	39,200
CENTRAL								
Juab...............	13,000	13,500	1/8,400	1/8,300	8,400	8,300	2/	2/
Millard............	58,000	58,500	19,600	19,700	17,100	17,000	2,500	2,700
Sanpete............	42,000	43,000	20,500	20,700	15,300	15,000	5,200	5,700
Sevier.............	35,000	36,000	15,200	15,100	12,200	12,000	3,000	3,100
Utah...............	53,000	54,000	25,300	24,700	17,400	17,200	7,900	7,500
Total..............	201,000	205,000	89,000	88,500	70,400	69,500	18,600	19,000
EASTERN								
Carbon.............	12,000	11,000	1/7,400	1/6,500	7,400	6,500	2/	2/
Daggett............	3,500	3,600	1/2,200	1/2,000	2,200	2,000	2/	2/
Duchesne...........	48,000	49,000	27,900	27,000	25,000	24,000	2,900	3,000
Emery..............	20,000	21,000	12,000	12,700	11,400	12,100	600	600
Grand..............	7,000	6,000	1/3,500	1/3,300	3,500	3,300	2/	2/
San Juan...........	20,000	20,000	1/12,600	1/12,000	12,600	12,000	2/	2/
Summit.............	18,000	17,500	10,100	10,600	8,100	8,600	2,000	2,000
Uintah.............	40,000	41,500	24,400	23,900	23,600	22,900	800	1,000
Wasatch............	10,000	10,400	4,900	4,800	2,600	2,600	2,300	2,200
Total..............	178,500	180,000	105,000	102,800	96,400	94,000	8,600	8,800
SOUTHERN								
Beaver.............	29,000	28,500	13,100	12,700	10,300	10,100	2,800	2,600
Garfield...........	18,000	18,500	1/10,900	1/11,000	10,900	11,000	2/	2/
Iron...............	19,000	19,500	10,400	10,300	9,400	9,300	1,000	1,000
Kane...............	9,500	10,000	1/4,700	1/4,800	4,700	4,800	2/	2/
Piute..............	10,000	11,000	6,000	7,000	4,800	5,900	1,200	1,100
Washington.........	18,000	17,500	1/9,300	1/9,200	9,300	9,200	2/	2/
Wayne..............	16,000	17,000	10,400	10,600	9,500	9,700	900	900
Total..............	119,500	122,000	64,800	65,600	58,900	60,000	5,900	5,600
Counties with less than 500 head......			1,600	1,400			1,600	1,400
State..............	760,000	770,000	391,000	389,000	318,000	315,000	73,000	74,000

1/ Milk cows excluded from county total, but included in total of counties with less than 500 milk cows. 2/ Included in total of counties with less than 500 milk cows.

UTAH AGRICULTURAL STATISTICS 1989

Stock Sheep and Lambs County Estimates, January 1, 1988-89.

County	1988	1989
NORTHERN		
Box Elder	35,000	36,000
Cache	6,500	6,600
Davis	8,000	8,200
Morgan	15,000	15,500
Rich	20,000	20,500
Salt Lake	16,000	16,500
Tooele	10,000	10,500
Weber	5,000	5,200
Total	115,500	119,000
CENTRAL		
Juab	3,000	3,400
Millard	9,000	9,300
Sanpete	88,000	90,000
Sevier	20,000	19,500
Utah	42,000	43,800
Total	162,000	166,000
EASTERN		
Carbon	7,000	7,100
Daggett	1,000	1,000
Duchesne	15,000	17,400
Emery	5,500	6,500
Grand	500	300
San Juan	3,000	3,200
Summit	36,000	37,500
Uintah	23,000	25,000
Wasatch	17,000	18,000
Total	108,000	116,000
SOUTHERN		
Beaver	1,500	1,600
Garfield	3,000	3,200
Iron	52,000	54,300
Kane	1,000	1,500
Piute	4,500	4,700
Washington	1,500	1,500
Wayne	11,000	12,200
Total	74,500	79,000
STATE	460,000	480,000

County Estimates for Mink--1986-87 1/.

County	Pelts Produced		Females Bred to Produce Kits	
	1986	1987	1987	1988
	Number		Number	
NORTHERN				
Cache	57,300	54,900	15,300	16,900
Morgan	127,700	129,900	36,800	39,500
Salt Lake	62,500	65,000	18,200	20,400
Other	11,600	11,000	3,300	3,300
Total	259,100	260,800	73,600	80,100
CENTRAL				
Utah	131,900	182,600	34,400	47,300
Other	6,200	7,200	1,600	1,600
Total	138,100	189,800	36,000	48,900
EASTERN				
Summit	79,900	81,800	27,300	31,000
Other	2,300	3,000	700	1,000
Total	82,200	84,800	28,000	32,000
STATE	479,400	535,400	137,600	161,000

1/ Pelt estimates for 1988 not available until after July 20, 1989.

Cash Receipts by County - 1986 Revised, 1987 Preliminary.

County	Livestock and Livestock Products		Crops		Total	
	1986	1987	1986	1987	1986	1987
	- - - - - - - - - Million Dollars - - - - - - - - -					
NORTHERN						
Box Elder	36.7	38.6	19.9	20.6	56.6	59.2
Cache	55.8	61.7	9.8	9.9	65.5	71.6
Davis	9.0	9.0	10.0	13.2	19.0	22.2
Morgan	10.7	10.7	.8	.8	11.5	11.6
Rich	9.9	12.9	1.3	1.5	11.3	14.4
Salt Lake	17.5	18.0	6.3	6.4	23.8	24.4
Tooele	6.7	7.7	3.2	3.2	9.9	10.8
Weber	20.0	21.2	3.3	3.7	23.3	24.9
Total	166.3	179.8	54.6	59.3	220.9	239.1
CENTRAL						
Juab	3.9	3.9	2.5	1.7	6.4	5.6
Millard	19.5	22.1	20.4	17.0	39.8	39.3
Sanpete	70.9	60.3	4.1	3.9	75.0	64.2
Sevier	20.6	20.6	4.1	4.2	24.7	24.8
Utah	45.7	46.9	18.0	16.1	63.8	63.0
Total	160.6	153.8	49.1	42.9	209.7	196.9
EASTERN						
Carbon	3.4	4.2	.6	.6	4.0	4.8
Daggett	.8	1.1	.4	.3	1.2	1.4
Duchesne	17.3	20.2	2.9	3.2	20.2	23.3
Emery	6.8	7.4	1.6	1.5	8.4	8.9
Grand	1.8	2.2	.3	.3	2.2	2.5
San Juan	5.3	6.1	3.2	3.0	8.5	9.1
Summit	12.8	14.1	1.0	1.1	13.8	15.2
Uintah	12.6	14.4	3.0	3.1	15.6	17.5
Wasatch	8.3	8.2	.9	1.0	9.3	9.1
Total	69.1	77.9	13.9	14.1	83.2	91.8
SOUTHERN						
Beaver	12.6	13.5	2.5	2.6	15.0	16.0
Garfield	5.0	5.5	1.0	1.2	6.0	6.7
Iron	9.7	10.4	7.8	7.9	17.5	18.2
Kane	2.2	3.1	.3	.3	2.5	3.5
Piute	5.1	5.3	.6	.6	5.7	5.9
Washington	5.3	6.2	3.0	3.6	8.3	9.9
Wayne	6.1	7.0	1.0	1.1	7.0	8.1
Total	46.0	51.0	16.2	17.3	62.0	68.3
STATE	442.0	462.5	133.8	133.6	575.8	596.1

UTAH AGRICULTURAL STATISTICS 1989

Utah Farms, Land in Farms, and Selected Items—1987 Census 1/

County	Number of Farms	Land in Farms	Average Size of Farms	Total Cropland	Harvested Cropland	Irrigated Land	Value of Land and Buildings	
							Average per Farm	Average per Acre
	Number	Acres	Acres	Acres	Acres	Acres	Dollars	Dollars
NORTHERN								
Box Elder............	1,088	1,584,194	1,456	368,367	170,579	106,686	408,718	282
Cache................	1,223	324,105	265	171,545	113,433	83,771	213,371	814
Davis................	647	63,244	98	30,376	20,783	24,539	192,927	2,242
Morgan...............	261	283,105	1,085	22,662	12,508	10,369	437,395	408
Rich.................	166	514,768	3,101	75,404	51,443	33,998	872,331	283
Salt Lake............	734	155,398	212	39,582	19,726	16,030	358,488	1,580
Tooele...............	299	487,427	1,630	(D)	19,563	18,972	417,270	254
Weber................	891	199,496	224	46,342	28,239	31,523	187,487	816
CENTRAL								
Juab.................	215	273,876	1,274	69,471	30,413	22,609	324,549	281
Millard..............	630	480,195	762	176,482	98,835	93,419	327,938	422
Sanpete..............	761	447,526	588	98,500	53,623	110,744	298,264	512
Sevier...............	476	161,495	339	49,586	32,946	43,475	224,653	667
Utah.................	1,723	493,902	287	135,352	87,089	78,659	255,683	925
EASTERN								
Carbon...............	210	223,549	1,065	16,541	5,760	9,051	332,752	304
Daggett..............	36	25,120	698	9,344	5,905	8,237	276,528	396
Duchesne.............	753	366,471	487	106,703	48,646	97,174	214,971	418
Emery................	446	215,761	484	52,448	20,409	38,935	208,348	442
Grand................	81	169,325	2,090	(D)	3,012	4,397	425,481	204
San Juan.............	218	340,449	1,562	117,780	51,655	8,544	425,005	257
Summit...............	439	348,827	795	40,965	20,451	29,429	328,770	464
Uintah...............	693	1,318,672	1,903	(D)	39,616	75,958	325,257	166
Wasatch..............	298	159,854	536	20,381	11,809	16,955	310,829	517
SOUTHERN								
Beaver...............	226	187,041	828	37,081	29,118	34,959	281,522	386
Garfield.............	263	138,559	527	31,772	13,180	22,852	336,586	530
Iron.................	380	483,118	1,271	73,793	48,183	61,710	493,879	386
Kane.................	152	207,495	1,365	17,766	3,038	7,742	414,454	320
Piute................	126	56,310	447	21,600	12,482	17,710	271,976	577
Washington...........	414	178,169	430	28,188	9,641	14,467	346,392	730
Wayne................	217	101,622	468	23,184	14,801	18,293	276,111	586
State Total..........	14,066	9,989,073	710	2,028,537	1,076,886	1,161,207	302,838	425

(D) - Withheld to avoid disclosing data for individual farms.

1/ Source: 1987 Preliminary Census of Agriculture, U.S. Department of Commerce, Bureau of the Census.

UTAH AGRICULTURAL STATISTICS 1989

Number of Farms by Value of Sales, 1987 Census of Agriculture

	Under $2,500	$2,500-$4,900	$5,000-$9,999	$10,000-$24,999	$25,000-$49,999	$50,000-$99,999	$100,000+
NORTHERN							
Box Elder..................	241	116	134	205	129	104	159
Cache......................	326	132	156	202	122	97	188
Davis......................	288	92	74	76	33	33	51
Morgan.....................	95	37	22	40	16	10	41
Rich.......................	14	13	18	41	23	25	32
Salt Lake..................	354	126	97	58	29	31	39
Tooele.....................	106	43	47	47	26	13	17
Weber......................	397	134	106	107	40	40	67
CENTRAL							
Juab.......................	48	20	35	52	27	13	20
Millard....................	94	52	93	129	105	69	88
Sanpete....................	156	82	109	134	88	64	128
Sevier.....................	102	59	73	94	61	50	37
Utah.......................	697	271	198	229	89	87	152
EASTERN							
Carbon.....................	100	36	32	27	2	5	8
Daggett....................	5	3	5	8	4	9	2
Ducnesne...................	205	95	112	138	93	63	47
Emery......................	133	77	67	85	43	29	12
Grand......................	39	10	8	12	5	3	4
San Juan...................	52	15	29	38	32	22	30
Summit.....................	126	69	67	70	39	24	44
Uintah.....................	240	137	83	112	53	33	35
Wasatch....................	110	53	38	40	18	17	22
SOUTHERN							
Beaver.....................	47	22	19	30	18	40	50
Garfield...................	68	33	47	48	34	20	13
Iron.......................	78	47	45	65	42	43	60
Kane.......................	42	20	30	33	16	6	5
Piute......................	20	9	20	30	22	12	13
Washington.................	166	66	54	65	29	22	12
Wayne......................	31	25	36	57	34	21	13
State Total................	4,380	1,894	1,854	2,272	1,272	1,005	1,389

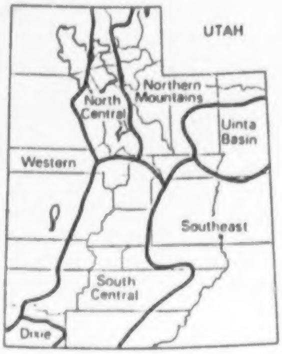
Number of Farms by Total Land in Farms, 1987 Census of Agriculture

	1 - 9 Acres	10 - 49 Acres	50 - 179 Acres	180 - 499 Acres	500 - 999 Acres	1,000+ Acres
NORTHERN						
Box Elder...........	152	234	270	164	86	182
Cache...............	168	331	371	256	62	35
Davis...............	205	256	126	44	9	7
Morgan..............	37	97	51	40	8	28
Rich................	16	16	23	28	23	60
Salt Lake...........	353	244	85	28	7	17
Tooele..............	38	84	57	33	34	53
Weber...............	218	405	176	57	20	15
CENTRAL						
Juab................	13	32	44	49	26	51
Millard.............	43	78	167	150	95	97
Sanpete.............	73	156	246	153	69	64
Sevier..............	49	141	162	89	12	23
Utah................	475	655	360	129	51	53
EASTERN						
Carbon..............	31	56	48	32	10	33
Daggett.............	4	0	10	5	8	9
Duchesne............	56	149	232	170	87	59
Emery...............	24	97	134	105	43	43
Grand...............	19	26	12	10	5	9
San Juan............	12	22	27	29	29	99
Summit..............	69	98	116	61	31	64
Uintah..............	62	206	200	115	52	58
Wasatch.............	39	107	90	38	9	15
SOUTHERN						
Beaver..............	26	43	58	48	21	30
Garfield............	23	56	74	61	20	29
Iron................	40	70	64	67	46	93
Kane................	10	20	20	30	22	50
Piute...............	8	15	34	36	17	16
Washington..........	89	92	96	57	33	47
Wayne...............	13	49	84	53	6	12
State Total..........	2,365	3,835	3,437	2,137	941	1,351

WEATHER

Gaylen L. Ashcroft, Associate Utah State Climatologist

Precipitation Summary: Except for the southeast, annual accumulations were about normal. In the southeast, the Uinta Basin was 78 percent of normal, the Northern Mountains was 71 percent, and the North Central Division was only 64 percent. The North Central Division was above normal for only one month during the year and the Northern Mountains was above only two months. During many months, the mountainous section of the north (North Central and Northern Mountains Divisions) was out of phase with the rest of the divisions. For example, in January, April, and August, these divisions were well below normal, but the State was generally above. In November, the opposite condition occurred. February, March, July, and October were generally dry months.



PRECIPITATION, PERCENT-OF-NORMAL, BY CLIMATIC DIVISION, 1988

Division	Month											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Western...........	71	10	66	94	120	19	29	51	53	21	186	85
Northern Mountains	74	26	80	87	96	38	35	52	50	15	186	78
Uinta Basin.......	184	12	98	153	92	28	26	62	127	17	81	84
Western...........	166	23	76	151	112	49	48	104	104	38	140	119
South Central.....	127	35	88	219	100	113	63	124	54	57	47	114
Southeast.........	128	48	80	200	134	148	43	107	110	27	77	72
Dixie.............	116	32	33	478	74	186	105	160	20	14	71	154

Temperature Summary: Annual mean temperatures were well above normal. Departures from normal, however, exhibited an unusual distribution. On both ends of the year, the winter months (January, February, and December) were colder than normal. During the nonwinter months, with the exception of September, temperatures were higher than normal.

MEAN TEMPERATURE, DEPARTURES FROM NORMAL, BY CLIMATIC DIVISION, 1988

Division	MONTH											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Western...........	-4.1	-.6	.4	3.5	.4	6.1	2.7	1.0	-1.3	6.4	.7	-3.7
Northern Mountains	-2.3	.3	.4	3.7	.7	5.8	3.2	1.7	-.7	5.7	-.3	-3.4
Uinta Basin.......	-2.4	-4.5	.0	2.7	.6	4.7	1.8	1.3	-1.6	5.3	2.0	-.7
Western...........	-7.5	-2.6	.7	2.4	-.5	4.6	2.2	.0	-1.1	5.8	1.3	-4.4
South Central.....	-3.8	-.2	.0	2.2	-.5	3.9	1.8	.6	-1.1	5.3	.4	-3.1
Southeast.........	-4.1	-.9	-.3	1.2	.0	3.5	1.6	1.5	-1.3	4.9	1.2	.2
Dixie.............	.1	2.6	1.3	1.3	.8	3.2	2.4	.1	-.8	6.4	1.1	.7

Mean Monthly Temperature (°F), Utah, 1988.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta............	14.4	23.6	38.2	49.7	56.4	70.6	76.5	72.0	61.0	57.4	37.7	21.8	48.3
Milford WSO......	17.0	26.8	37.8	48.6	53.9	68.9	75.8	71.8	60.6	55.2	38.1	21.6	48.0
Modena...........	22.9	32.0	39.9	48.1	55.1	67.2	74.4	69.4	60.6	56.2	38.2	25.5	49.1
Snowville........	19.2	26.6	35.8	46.1	52.0	67.7	74.1	69.5	57.4	52.9	33.1	21.0	46.3
Wendover.........	19.9	32.7	42.3	52.3	60.9	75.4	82.2	75.9	64.4	58.5	40.4	26.0	52.6
#Division......	19.4	30.1	39.4	49.4	56.0	70.3	76.6	72.0	61.3	56.3	38.5	24.0	49.4
DIXIE													
St. George.......	40.6	47.7	53.0	60.9	69.9	81.9	87.9	82.7	74.2	69.2	50.4	40.9	63.3
Zion Nat'l Park..	40.4	48.3	50.7	57.8	66.5	79.5	86.6	81.1	73.0	70.7	49.8	41.6	62.2
#Division......	38.8	46.5	50.1	57.7	66.2	78.4	84.4	79.8	71.8	67.9	48.9	40.5	60.9
NORTH CENTRAL													
Corinne..........	19.5	30.2	40.7	50.6	57.6	71.0	75.5	71.7	60.4	56.6	38.2	25.7	49.8
Elberta..........	20.7	28.9	39.9	51.4	57.7	72.7	79.7	74.5	63.6	57.6	39.9	24.4	50.9
Farmington USU...	27.3	34.8	41.4	54.0	59.3	75.8	79.6	75.0	65.0	60.1	41.1	29.0	53.5
Logan USU........	20.7	28.7	36.6	50.1	56.8	70.7	77.0	72.8	60.7	58.2	37.0	21.6	49.2
Ogden Pioneer PH.	26.0	34.9	40.6	51.8	59.5	74.7	80.5	75.9	64.1	61.4	39.0	28.1	53.0
SLC Airport......	25.0	34.8	41.4	52.0	59.6	75.7	80.9	76.5	63.8	60.0	41.1	28.1	53.2
Tooele...........	27.5	34.3	40.5	53.3	59.5	75.0	81.1	76.8	64.6	60.2	39.2	27.8	53.3
Trenton..........	17.5	27.1	38.9	49.1	54.4	66.9	71.9	68.3	57.5	53.9	34.9	19.5	46.7
Utah Lake Lehi...	19.8	28.1	36.9	50.8	54.3	70.3	76.8	71.1	60.6	55.8	38.8	24.2	49.0
#Division.......	22.9	31.3	39.0	50.9	57.5	72.0	77.3	73.2	61.8	57.7	38.7	25.2	50.6
SOUTH CENTRAL													
Cedar City FAA...	25.4	33.8	38.3	47.9	54.2	69.4	75.6	71.8	61.1	57.6	38.9	26.9	50.1
Fillmore.........	22.9	31.3	41.4	52.4	58.1	71.1	77.1	72.9	63.3	59.7	40.6	25.5	51.4
Kanab PH.........	34.4	42.8	45.1	52.3	60.1	72.6	78.5	74.9	66.3	62.6	44.6	34.1	55.7
Levan............	20.8	28.1	36.2	48.9	55.6	70.1	76.2	73.2	62.1	57.8	38.8	23.6	49.3
Loa..............	23.1	30.5	34.4	43.2	50.6	62.4	67.3	64.1	55.0	50.4	34.6	23.5	44.9
Manti............	21.2	28.3	36.1	47.9	54.2	68.0	72.7	68.9	59.1	55.2	36.6	24.5	47.7
Nephi............	23.9	32.4	39.8	52.1	57.6	71.8	77.2	73.2	62.7	58.9	39.8	26.2	51.3
Panguitch........	22.2	30.5	35.1	44.0	49.7	62.2	66.8	64.2	55.7	50.2	34.5	24.6	45.0
Richfield........	18.6	28.6	38.7	49.7	54.5	67.5	71.5	68.7	59.0	54.0	38.8	25.7	47.9
#Division.......	23.3	31.4	37.0	47.1	53.5	67.0	72.2	68.6	59.1	55.1	37.5	25.7	48.1
NORTHERN MOUNTAINS													
Coalville........	22.0	28.6	34.9	47.3	52.4	64.9	68.9	64.5	55.5	51.5	33.9	19.8	45.4
Heber............	19.4	26.1	35.1	46.6	52.4	64.6	69.3	65.9	56.0	52.0	33.8	18.6	45.0
Manila...........	23.1	31.6	34.9	47.4	54.5	69.1	72.8	68.4	58.8	55.1	37.8M	22.8	48.1M
Morgan...........	20.5	28.4	36.6	48.5	55.0	67.9	72.4	67.8	57.3	52.9	34.0	20.1	46.8
Olmstead PH......	27.6	34.9	41.5	52.9	59.9	73.7	79.0	75.3	62.7	60.0	40.3	28.5	53.0
Scofield Dam.....	9.9	16.0	22.6	37.8	45.2	58.2	63.3	60.2	49.9	46.3	27.5	13.5	37.5
Silver Lk Brighton	17.7	21.2	23.5	35.3	41.7	56.1	61.3	57.8	47.3	44.6	25.3	19.6	37.6
Woodruff.........	11.6	16.2	28.3	42.8	48.5	61.9	66.5	61.1	51.1	46.4	29.5	16.2	40.0
#Division.......	18.9	25.0	31.0	43.7	50.3	63.4	68.5	64.8	54.3	50.6	31.7	20.2	43.5
UINTA BASIN													
Duchesne.........	11.6	21.0	34.9	48.9	56.5	69.1	72.5	69.2	58.3	54.5	35.8	22.1	46.2
Fort Duchesne....	7.7	17.7	35.9	48.5	57.5	70.2	75.5	72.1	59.2	54.0	35.9	21.6	46.3
Jensen...........	8.1	19.1	36.5	49.6	57.3	70.0	73.8	70.6	59.1	53.3	35.2	19.9	46.0
#Division.......	9.7	19.6	35.5	48.9	56.8	69.6	73.9	70.6	58.7	53.8	35.5	20.5	46.1
SOUTHEAST													
Blanding.........	24.9	34.6	39.1	49.7	56.9	70.4	74.2	71.8	61.6	58.0	39.1	30.9	50.9
Ferron...........	17.9	29.4	36.5	47.4	56.5	69.4	74.9	71.7	60.2	56.3	36.8	25.7	48.6
Hanksville.......	19.5	33.3	42.0	54.7	62.7	77.7	80.9	77.6	64.4	58.6	41.2	27.1	53.3
Moab 4 NW........	24.2	33.4	46.7	58.0	66.0	79.9	83.0	81.5	68.8	62.1	45.3	33.4	56.9
Price Warehouse..	22.3	31.4	38.8	51.8	57.7	70.3	76.2	M	M	57.4	36.2	26.3	M
#Division.......	22.9	32.9	40.7	51.4	59.8	73.2	78.2	75.3	64.1	58.6	40.7	29.5	52.3
STATE AVERAGE.....	20.9	30.0	38.0	48.9	56.0	69.6	75.0	71.3	60.7	56.0	37.9	25.4	49.1

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825. #Division averages include other stations not shown in this table. State averages are determined by weighting division averages by their relative areas in the State total.
M-Missing data.

Normal Mean Monthly Temperature (°F), Utah, 1951-80.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta...........	26.0	32.8	39.3	47.9	56.9	67.6	76.2	73.4	63.6	51.0	37.3	28.0	50.0
Milford WSO.....	26.4	32.1	38.2	46.3	55.9	65.8	74.3	72.1	62.6	50.3	36.8	28.2	49.1
Modena..........	28.7	34.0	38.6	46.2	55.2	64.8	72.4	70.3	62.3	51.0	38.1	30.3	49.3
Snowville.......	22.1	28.1	33.6	43.1	52.5	60.9	70.0	67.7	58.6	46.6	34.0	24.7	45.2
Wendover........	28.1	34.4	41.4	50.5	60.8	70.4	79.8	76.7	66.0	52.4	38.2	28.8	52.3
#Division....	26.8	32.5	38.5	46.5	56.0	65.1	73.8	71.3	62.0	50.1	36.9	28.1	49.0
DIXIE													
St. George......	40.3	46.2	51.9	59.8	68.9	78.3	84.9	82.8	75.0	63.3	49.5	40.9	61.8
Zion Nat'l Park.	40.1	45.0	49.3	57.4	67.0	77.3	84.2	81.8	75.1	64.1	49.9	41.5	61.1
#Division....	39.6	45.1	50.1	57.8	66.8	76.3	83.2	81.0	73.8	62.5	48.9	40.6	60.5
NORTH CENTRAL													
Corinne.........	25.4	31.0	38.4	47.7	56.8	65.7	74.4	71.9	62.2	52.9	37.2	28.1	49.3
Elberta.........	27.6	33.0	39.9	48.2	57.5	66.8	75.1	72.6	63.5	51.5	38.7	29.2	50.3
Farmington USU..	29.1	34.3	40.6	49.0	58.5	67.2	75.7	73.4	63.9	52.6	39.5	30.6	51.2
Logan USU.......	24.7	29.0	36.2	46.0	55.9	64.0	73.0	71.1	61.8	50.6	36.7	27.2	48.0
Ogden Pioneer PH	28.6	33.6	40.0	49.0	59.0	68.0	77.0	74.3	64.8	53.1	39.4	30.5	51.4
SLC Airport.....	28.6	34.1	40.7	49.2	58.8	68.3	77.5	74.9	65.0	53.0	39.7	30.3	51.7
Tooele..........	29.5	33.9	39.6	48.0	57.7	67.0	75.8	73.0	63.9	51.8	38.8	30.7	50.8
Trenton.........	21.1	26.2	33.8	44.4	54.0	61.4	69.2	67.0	59.6	48.4	35.7	24.5	45.5
Utah Lake Lehi..	26.2	31.5	38.3	46.8	56.3	64.8	72.6	70.3	61.1	49.8	37.0	28.4	48.6
#Division....	26.8	31.7	38.5	47.4	57.0	65.7	74.3	72.0	62.7	51.3	37.8	28.7	49.5
SOUTH CENTRAL													
Cedar City FAA..	29.6	34.2	39.2	47.0	56.3	66.3	74.0	71.8	63.5	52.0	39.1	31.1	50.3
Fillmore........	29.1	34.5	40.5	48.4	57.7	67.4	75.9	73.6	65.0	53.0	39.3	30.4	51.2
Kanab PH........	35.1	39.7	44.0	51.5	60.0	69.3	75.9	73.7	67.2	57.1	44.8	36.8	54.6
Levan...........	26.3	31.6	38.3	46.5	55.9	65.2	73.6	71.2	62.6	51.4	37.9	28.3	49.1
Loa.............	23.6	27.8	32.9	40.8	50.0	58.4	64.8	62.4	55.0	45.1	32.7	24.9	43.2
Manti...........	26.1	30.6	37.4	45.6	54.6	63.3	70.6	68.5	60.3	49.9	36.7	27.8	47.6
Nephi...........	28.9	33.4	39.4	47.7	57.2	67.0	76.0	73.5	64.4	52.9	39.5	30.7	50.9
Panguitch.......	24.2	28.1	33.9	41.9	50.3	42.2	65.5	63.2	56.0	46.6	34.1	25.3	43.9
Richfield KSVC..	28.0	32.9	38.9	46.3	55.0	63.5	70.8	68.8	60.4	49.9	37.5	29.4	48.5
#Division....	27.2	31.7	37.3	45.2	54.3	63.5	71.1	68.7	60.8	50.2	37.3	28.9	48.0
NORTHERN MOUNTAINS													
Coalville.......	24.4	28.3	34.5	43.2	51.3	57.3	65.6	63.9	56.4	46.9	35.2	26.1	44.5
Heber...........	21.8	26.3	33.9	42.9	51.8	59.4	67.4	65.4	57.2	47.4	34.2	24.8	44.4
Manila..........	22.1	26.2	33.9	41.8	51.9	60.3	67.8	65.8	57.4	47.3	33.5	23.5	44.3
Morgan..........	23.5	28.1	35.3	44.3	53.5	61.6	69.2	67.0	58.2	48.0	34.6	25.9	45.8
Olmstead PH.....	30.1	32.6	39.4	47.9	56.7	65.9	76.1	73.1	64.1	53.4	39.9	30.7	50.8
Scofield........	16.1	21.3	26.4	34.8	45.0	52.4	59.0	57.1	50.1	41.3	28.4	18.3	37.5
Silver Lk Brighton	19.0	21.0	24.0	31.6	40.9	50.1	58.2	56.2	48.7	39.1	27.0	20.8	36.4
Woodruff........	15.8	18.9	26.9	38.1	47.5	55.4	62.6	60.3	51.8	41.5	28.2	18.6	38.8
#Division....	21.6	25.3	31.6	40.9	50.3	58.5	66.4	64.2	56.0	45.9	32.9	24.2	43.2
UINTA BASIN													
Duchesne	19.0	25.5	35.4	45.7	55.9	64.2	71.2	68.7	60.0	48.3	33.4	22.2	45.7
Fort Duchesne...	14.8	22.0	34.6	45.3	55.8	64.4	71.5	68.7	59.4	47.6	32.7	19.5	44.7
Jensen..........	15.4	22.8	35.3	46.5	56.8	65.0	72.2	69.1	60.0	48.0	33.3	20.0	45.4
#Division....	16.2	23.6	35.4	46.2	56.3	64.7	71.9	69.2	60.1	48.2	33.2	20.7	45.5
SOUTHEAST													
Blanding........	27.3	33.0	38.9	47.1	56.9	66.9	73.5	70.8	63.1	51.8	38.4	29.5	49.8
Ferron..........	22.8	29.0	36.4	46.1	56.0	65.6	72.6	69.6	61.6	50.7	36.2	26.0	47.7
Green River Avn.	23.1	32.6	42.1	51.7	61.6	70.7	78.0	75.2	65.4	52.9	38.3	26.9	51.5
Hanksville......	25.6	34.1	42.9	52.4	62.9	72.8	80.0	77.0	67.4	54.4	39.0	28.2	53.1
Moab 4 NW.......	30.2	38.0	47.0	56.4	66.1	75.2	82.1	79.5	70.5	58.0	43.5	32.9	56.6
Price Warehouse.	24.4	30.7	38.1	47.1	58.6	66.8	74.3	71.6	63.4	52.1	37.7	27.4	49.4
#Division....	26.6	33.8	41.3	50.5	60.5	70.0	76.9	74.2	65.7	53.9	39.5	29.1	51.8
STATE AVERAGE....	25.6	31.3	38.0	46.7	56.3	65.3	73.1	70.6	62.0	50.7	37.1	27.7	48.7

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825. #Division averages include other stations not shown in this table. State averages are determined by weighting division averages by their relative areas in the State total.

Total Precipitation (inches), Utah, 1988.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta...........	1.19	.13	.52	.56	.71	.32	.09	.58	.83	.60	.80	.80	7.11
Milford.........	1.11	.15	1.10	1.59	1.14	.27	.07	.79	.64	.41	.61	.55	8.43
Modena..........	1.65	.45	.28	4.48	.02	.10	2.21	1.84	.44	.43	.97	.56	13.43
Snowville.......	.77	.16	.76	1.34	1.19	.22	.00	.11	.06	.07	2.60	1.48	8.76
Wendover........	.60	.00	.05	.59	.64	.88	.05	.01	.45	.00	.64	.15	4.06
#Division......	.98	.13	.56	1.22	1.02	.33	.30	.75	.57	.25	.86	.64	7.61
DIXIE													
St. George......	1.33	.30	.26	2.86	.09	.79	.38	1.61	.16	.04	.58	.97	9.37
Zion Nat'l Park.	2.10	.76	.71	4.67	.68	.31	.52	2.21	.19	.13	.93	1.87	15.08
#Division......	1.57	.44	.47	3.92	.49	.67	.82	1.62	.15	.11	.70	1.48	12.44
NORTH CENTRAL													
Corinne.........	.08M	.00	.60M	1.08	.93M	.06	.00	.38	.16	.00	2.60	1.37	7.26M
Elberta.........	1.65	.16	1.19	1.29	.58	.09	.08	.32	.47	.69	1.15	.46	8.13
Farmington USU..	1.22	.05	1.34	2.57	3.08	.00	.12	.13	.35	.06	5.24	2.09	16.25
Logan USU.......	.87	.18	1.45	2.28	1.59	.76	T	.16	.88	T	3.26	1.14	12.57
Ogden Pioneer PH	1.49	.18	1.00	3.99	3.87	.07	.00	.27	.41	.22	5.21	3.33	20.04
SLC Airport.....	1.06	.13	.94	1.84	2.16	.03	.04	.22	.07	.01	2.17	.62	9.29
Tooele..........	1.33	.10	2.21	2.04	3.83	.17	.01	.36	.43	.20	3.85	1.17	15.70
Trenton.........	.71	.04	1.04	1.66	1.52	.48	.00	1.01	.45	T	2.88	1.40	11.19
Utah Lake Lehi..	.00M	.12M	.57M	1.16	1.12	.06	.35	.66	.60	.49	1.35	.43	6.91M
#Division......	1.10	.14	1.06	1.84	1.92	.23	.19	.48	.52	.27	2.49	1.20	11.44
SOUTH CENTRAL													
Cedar City FAA..	.72	.53	1.14	3.14	1.16	.65	.80	.97	.10	.66	1.00	.74	11.71
Fillmore........	1.98	.28	2.60	1.84	1.57	.18	.02	1.55	.49	.56	1.91	1.40	14.38
Kanab PH........	1.31	.75	.14	3.94	.37	.25	.31	1.74	.16	.19	.41	2.04	11.61
Levan...........	1.98	.41	1.71	1.41	1.86	.25	.43	.61	.63	.53	1.51	.97	12.30
Loa.............	.59M	.15	.18	1.27	1.40	1.81	.61	2.16	1.15	.27	.14	.25M	9.98M
Manti...........	1.08	.19	1.39	1.70	1.38	.23	.28	1.95	.79	.89	1.02	.95	11.85
Nephi...........	1.57	.27	1.46	1.94	2.04	.13	.57	.53	.46	.54	1.90	1.12	12.53
Panguitch.......	.87	.24	.43	2.39	.36	1.00	1.80	.63	.10	.14	.49	.47	8.92
Richfield KSVC..	.71	.30	.33	1.38	.68	.63	T	1.08	.54	.35	.48M	.37	6.85M
#Division......	1.38	.37	1.01	2.28	.94	.61	.60	1.62	.54	.52	.86	1.11	11.84
NORTHERN MOUNTAINS													
Coalville.......	.72	.54	1.08	1.28	1.66	.68	.38	.22	.12	.05	3.51	1.11	11.35
Heber...........	1.24	.31	.46	1.04	.69	.24	.17	.43	.41	.31	2.52	1.29	9.11
Manila..........	.45M	.15	.54M	.71	.51	T	.19	.89	.48	.01	.57	M	4.50M
Morgan..........	1.32	.47	1.80	1.42	2.02	.04	.29	.05	.31	.02	3.69	1.24	12.67
Olmstead PH.....	1.62	.08	.91	2.57	1.85	.20	.60	.87	.99	.75	3.00	1.87	15.31
Scofield Dam....	1.43	.23	1.29	.69	.75	.49	.60	1.87	.92	.68	.56	.66	10.17
Silver Lk Brighton	4.35	1.90	4.07	2.58	2.51	.33	.02	.70	.89	.31	7.95	5.07	30.68
Woodruff........	.47	.08	.69	.69	.74	.35	.03	.20	.41	T	.53	.24	4.43
#Division......	1.63	.49	1.52	1.63	1.48	.44	.31	.64	.57	.22	3.01	1.55	13.49
UINTA BASIN													
Duchesne AP.....	1.33	.08	.84	1.58	.91	.27	.41	.39	.71	.50	.44	1.34	8.80
Fort Duchesne...	.86	.05	.20	.50	.97	.21	.13	.48	.71	.35	.40	.06	4.92
Jensen..........	.79	.01	.51	1.20	.82	.39	.06	.27	1.09	.07	.23	.66	6.10
#Division......	.94	.05	.56	1.04	.72	.20	.15	.50	.90	.15	.44	.51	6.16
SOUTHEAST													
Blanding........	2.03	.50	.03	.78	1.27	1.40	.51	1.82	1.07	.10	1.01	.88	11.30
Ferron..........	1.23	T	.59	2.02	.70	.27	.98	.64	.82	.93	.05	.65	8.88
Hanksville......	.39	.27	.80	.80	.54	.19	.11	.69	.31	.06	.18	.09	4.43
Moab 4 NW.......	.90	.29	.69	.65	1.49	T	.17	1.66	.54	.40	.97	.37	8.13
Price Warehouse.	.90	.00	.03	1.95	.83	.17	.24	.26M	.59M	.46	.21	.02M	5.66M
#Division......	.92	.29	.51	1.22	.90	.59	.33	1.12	.86	.29	.56	.53	8.12
STATE AVERAGE....	1.15	.27	.80	1.57	1.06	.46	.36	.99	.65	.30	1.15	.87	9.63

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825. #Division averages include other stations not shown in this table. State averages are determined by weighting division averages by their relative areas in the State total.
M-Missing data.
E-Estimated data.

Normal Precipitation (inches), Utah, 1951-80.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta............	.55	.61	.80	.79	.94	.41	.58	.48	.56	.57	.59	.63	7.51
Milford..........	.69	.74	.99	.96	.73	.42	.61	.71	.69	.73	.69	.63	8.59
Modena...........	.69	.73	.80	.68	.70	.40	1.14	1.21	.80	.87	.73	.49	9.24
Snowville........	1.11	.88	.86	1.14	1.48	1.26	.54	.84	.70	.70	1.00	.94	11.45
Wendover.........	.34	.36	.42	.43	.85	.61	.25	.42	.23	.47	.38	.30	5.06
#Division.....	.59	.57	.74	.81	.92	.67	.63	.72	.55	.65	.62	.54	8.01
DIXIE													
St. George.......	1.04	.90	.98	.47	.49	.21	.62	.65	.52	.56	.75	.72	7.91
Zion Nat'l Park..	1.76	1.71	1.78	1.12	.80	.60	.98	1.59	.88	.90	1.20	1.26	14.58
#Division.....	1.35	1.36	1.42	.83	.66	.36	.78	1.01	.76	.78	.99	.96	11.26
NORTH CENTRAL													
Corinne..........	1.78	1.52	1.36	1.73	1.66	1.42	.48	.80	1.04	1.18	1.39	1.50	15.86
Elberta..........	.90	.80	.93	1.06	.98	.73	.65	1.04	.68	.85	.90	.94	10.46
Farmington USU...	2.11	1.89	2.03	2.94	2.22	1.36	.58	1.08	1.11	1.52	1.71	1.77	20.32
Logan USU........	1.68	1.57	1.75	2.06	1.71	1.53	.45	.96	1.06	1.43	1.53	1.63	17.36
Ogden Pioneer PH.	2.36	1.90	2.05	2.52	2.14	1.58	.65	.98	1.20	1.58	1.73	1.89	20.58
SLC Airport......	1.35	1.33	1.72	2.21	1.47	.97	.72	.92	.89	1.14	1.22	1.37	15.31
Tooele...........	1.22	1.32	1.94	2.38	1.58	1.06	.75	.86	.92	1.36	1.43	1.42	16.24
Trenton..........	1.74	1.41	1.54	1.83	1.78	1.55	.55	.96	1.02	1.31	1.34	1.40	16.43
Utah Lake Lehi...	.95	.76	1.09	1.25	.98	.71	.61	.88	.74	.92	.89	.88	10.66
#Division.....	1.54	1.39	1.60	1.95	1.60	1.19	.65	.95	.99	1.31	1.35	1.41	15.93
SOUTH CENTRAL													
Cedar City FAA...	.64	.80	1.06	.98	.82	.45	1.10	1.17	.90	.78	.91	.65	10.26
Fillmore.........	1.45	1.52	1.79	1.75	1.26	.68	.63	.78	.93	1.07	1.31	1.34	14.51
Kanab PH.........	1.75	1.25	1.41	.82	.68	.38	.87	1.37	.79	.90	1.11	1.24	12.57
Levan............	1.31	1.32	1.52	1.66	1.33	.76	.68	.91	1.05	1.09	1.24	1.37	14.24
Loa..............	.39	.27	.34	.42	.69	.39	1.10	1.21	.87	.63	.42	.34	7.07
Manti............	1.13	1.20	1.28	1.40	1.16	.69	.67	.89	1.08	.99	1.05	.99	12.53
Nephi............	1.30	1.27	1.46	1.48	1.22	.76	.63	.95	.88	1.07	1.22	1.26	13.50
Panguitch........	.54	.65	.66	.60	.80	.58	1.46	1.56	1.10	.68	.74	.52	9.89
Richfield........	.63	.62	.63	.71	.73	.41	.81	.69	.80	.64	.59	.56	7.82
#Division.....	1.08	1.05	1.16	1.04	.09	.54	.96	1.30	1.00	.92	.98	.97	11.09
NORTHERN MOUNTAINS													
Coalville........	1.28	1.10	1.35	1.83	1.58	1.12	.83	.95	1.03	1.27	1.35	1.35	15.04
Heber............	2.09	1.52	1.27	1.32	1.18	.93	.65	.92	.92	1.29	1.50	1.73	15.32
Manila...........	.37	.51	.69	1.31	1.25	.87	.92	.92	.93	1.08	.48	.38	9.71
Morgan...........	1.91	1.73	1.76	2.19	1.76	1.30	.52	.97	1.04	1.50	1.64	1.75	18.07
Olmstead PH......	2.44	1.89	1.95	2.08	2.22	1.36	.48	1.06	1.10	1.10	1.74	2.20	19.62
Scofield.........	2.77	2.52	2.43	1.78	1.45	.93	.95	1.46	1.27	1.31	1.53	1.89	20.29
Silver Lk Brighton	5.56	4.96	5.26	4.44	2.83	1.76	1.28	1.90	1.96	2.94	4.30	5.02	42.21
Woodruff.........	.51	.48	.59	.88	.89	1.12	.72	.74	.79	.82	.62	.58	8.74
#Division.....	2.18	1.93	1.89	1.88	1.55	1.17	.88	1.23	1.15	1.45	1.62	1.99	18.92
UINTA BASIN													
Duchesue AP......	.41	.49	.55	.70	.83	.92	.64	1.07	.92	.94	.48	.66	8.61
Fort Duchesne....	.44	.34	.50	.60	.62	.69	.52	.73	.61	.78	.47	.52	6.82
Jensen...........	.51	.52	.61	.64	.75	.69	.43	.67	.71	.89	.53	.60	7.55
#Division.....	.52	.45	.58	.68	.78	.72	.58	.81	.71	.87	.54	.61	7.85
SOUTHEAST													
Blanding.........	1.34	.95	.80	.67	.59	.37	1.04	1.41	.89	1.46	.89	1.29	11.70
Ferron...........	.66	.60	.55	.47	.78	.51	.85	1.17	.78	.70	.58	.51	8.16
Hanksville.......	.30	.22	.35	.42	.49	.23	.44	.83	.60	.63	.43	.30	5.24
Moab 4 NW........	.57	.52	.67	.91	.68	.37	.52	.83	.66	.94	.66	.67	8.00
Price Warehouse..	.73	.76	.72	.50	.72	.70	.85	1.17	.97	1.09	.60	.87	9.68
#Division.....	.73	.61	.64	.61	.67	.40	.77	1.05	.78	1.08	.73	.74	8.81
STATE AVERAGE.....	1.01	.92	1.01	1.02	.98	.68	.77	1.02	.83	.98	.90	.94	11.06

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825. #Division averages include other stations not shown in this table. State averages are determined by weighting division averages by their relative areas in the State total.

UTAH AGRICULTURAL STATISTICS 1989

Accumulated Growing Degree Days Base 50, by Months, Utah, 1988.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta............	0	4	90	239	339	558	679	608	399	391	95	1	3403
Milford..........	0	10	99	210	312	541	663	614	402	366	84	7	3308
Modena...........	2	35	119	215	334	517	638	569	407	376	83	16	3311
Snowville........	0	9	51	180	287	535	686	559	350	312	30	0	2999
Wendover.........	0	10	81	208	355	694	871	733	444	316	45	0	3757
#Division.......	0	17	88	209	321	538	683	600	395	359	65	6	3281
DIXIE													
St. George.......	61	192	289	382	545	764	890	804	605	578	219	93	5422
Zion Nat'l Park..	54	165	239	305	516	735	885	796	610	592	204	106	5207
#Division.......	56	176	259	334	497	720	861	775	587	573	207	98	5143
NORTH CENTRAL													
Corinne..........	0	7	102	236	364	595	698	597	379	339	22	0	3339
Elberta..........	0	6	98	258	382	612	738	650	454	371	94	0	3663
Farmington USU...	0	17	100	273	378	676	775	679	440	380	64	0	3782
Logan USU........	0	0	38	178	302	570	739	629	377	328	34	0	3195
Ogden Pioneer PH.	0	21	65	223	369	645	820	723	435	369	43	1	3714
SLC Airport......	0	21	72	222	361	672	803	721	428	364	62	0	3726
Tooele...........	2	20	78	216	361	659	832	748	459	383	72	1	3831
Trenton..........	0	7	57	227	314	511	593	564	380	345	22	0	3020
#Division.......	0	12	52	222	342	588	734	651	408	354	45	0	3408
SOUTH CENTRAL													
Cedar City FAA...	2	36	92	180	295	515	696	630	421	382	90	16	3355
Fillmore.........	1	8	101	239	343	566	733	639	436	374	108	2	3550
Kanab............	17	106	179	243	412	610	735	682	478	426	151	58	4096
Levan............	5	9	61	227	309	557	670	600	417	384	105	0	3344
Loa..............	1	22	66	136	254	416	492	434	315	296	63	12	2507
Manti............	0	0	59	179	271	509	646	527	347	321	64	0	2933
Nephi............	2	23	108	260	365	586	710	634	418	409	107	2	3624
Panguitch........	1	30	84	160	280	431	521	461	386	334	76	13	2777
Richfield........	1	21	85	207	299	492	611	555	386	340	89	3	3089
#Division.......	3	24	69	186	301	507	622	551	390	348	79	14	3094
NORTHERN MOUNTAINS													
Heber............	1	3	54	195	280	466	562	507	356	340	45	0	2809
Manila...........	0	15	45	189	294	533	641	544	348	324	M	M	M
Morgan...........	2	10	62	230	322	527	595	543	382	363	50	0	3086
Olmstead PH......	3	25	107	246	360	620	749	670	404	365	80	0	3629
Scofield.........	0	0	1	42	129	325	415	379	206	147	10	0	1654
Silver Lk Brighton	0	0	1	28	109	287	390	348	183	114	4	0	1464
Woodruff.........	0	0	14	165	244	442	514	451	303	274	15	0	2422
#Division.......	1	7	36	136	264	471	562	495	321	283	34	0	2610
UINTA													
Duchesne.........	0	0	36	225	309	549	625	538	360	339	44	3	3028
Ft. Duchesne.....	0	0	52	219	340	564	641	583	401	347	57	0	3204
Jensen...........	0	0	73	256	359	552	611	560	402	369	55	0	3237
#Division.......	0	0	51	239	336	542	639	565	382	350	54	1	3159
SOUTHEAST													
Blanding.........	0	27	93	211	334	573	662	640	384	343	77	9	3353
Ferron...........	0	4	59	172	316	546	692	623	386	342	66	3	3209
Hanksville.......	0	44	156	333	456	643	682	672	472	433	157	10	4058
Moab 4 NW........	0	28	198	350	486	718	771	773	528	447	159	28	4486
Price Warehouse..	0	1	21	141	265	531	688	582	378	315	42	0	2964
#Division.......	0	16	113	256	382	649	717	681	426	390	106	8	3744
STATE AVERAGE......	2	18	81	211	330	557	666	600	395	357	74	8	3299

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825.

Normal Growing Degree Days Base 50, by Months, Utah.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta..............	0	0	63	201	357	529	664	628	456	262	34	0	3194
Milford..........	0	0	54	194	370	514	621	602	450	256	36	0	3097
Modena...........	0	2	83	215	380	515	583	573	460	289	65	0	3165
Snowville........	0	0	7	135	307	448	556	546	401	210	12	0	2622
Wendover.........	0	0	39	179	368	617	803	755	456	189	8	0	3414
#Division.......	0	1	60	189	358	505	628	601	439	246	36	0	3063
DIXIE													
St. George.......	65	150	277	398	585	699	815	791	629	464	227	86	5186
Zion Nat'l Park..	29	100	210	338	547	707	825	807	674	433	187	56	4913
#Division.......	45	122	238	360	546	675	793	774	628	435	202	69	4887
NORTH CENTRAL													
Corinne..........	0	0	31	180	355	492	642	605	427	226	18	0	2976
Elberta..........	0	0	59	202	374	519	660	630	437	245	31	0	3157
Farmington USU...	0	0	50	189	361	522	680	648	438	246	30	0	3164
Logan USU........	0	0	3	112	285	435	655	615	369	174	4	0	2652
Ogden Pioneer....	0	0	31	167	342	546	727	687	437	230	23	0	3190
SLC Airport......	0	0	39	178	357	553	717	687	449	238	26	0	3244
Tooele...........	0	0	20	143	305	516	736	678	400	186	12	0	2996
Trenton..........	0	0	4	124	306	431	550	541	416	224	15	0	2611
#Division.......	0	0	29	161	336	498	660	627	423	222	19	0	2975
SOUTH CENTRAL													
Cedar City FAA...	0	0	50	179	348	506	657	628	433	257	47	0	3105
Fillmore.........	0	0	67	198	365	529	682	657	459	267	42	0	3266
Kanab............	0	48	147	269	428	557	671	656	507	346	137	14	3780
Levan............	0	0	43	180	350	494	625	597	440	256	35	0	3020
Loa..............	0	0	9	115	273	401	487	448	336	187	15	0	2271
Manti............	0	0	29	158	319	449	588	548	391	218	20	0	2720
Nephi............	0	0	43	181	357	520	663	636	460	275	47	0	3182
Panguitch........	0	0	25	156	304	402	520	492	385	239	34	0	2557
Richfield........	0	1	77	204	362	492	569	554	440	277	56	0	3032
#Division.......	0	3	46	167	332	475	592	562	416	245	43	1	2882
NORTHERN MOUNTAINS													
Heber............	0	0	7	124	297	421	542	523	388	217	15	0	2534
Manila...........	0	0	0	91	266	404	545	499	343	163	4	0	2315
Morgan...........	0	0	14	145	325	463	557	543	408	225	15	0	2695
Olmstead PH......	0	0	37	160	319	493	684	656	437	249	26	0	3061
Silver Lk Brighton	0	0	0	0	67	211	327	301	179	32	0	0	1117
Woodruff.........	0	0	0	47	214	336	462	441	310	132	0	0	1942
#Division.......	0	0	6	89	252	387	515	488	344	169	9	0	2259
UINTA BASIN													
Duchesne.........	0	0	23	175	356	472	592	552	392	200	9	0	2771
Fort Duchesne....	0	0	27	187	368	499	570	551	416	214	10	0	2842
Jensen...........	0	0	38	208	391	513	572	556	439	237	16	0	2970
#Division.......	0	0	32	193	371	494	587	559	416	215	11	0	2878
SOUTHEAST													
Blanding.........	0	0	40	180	357	514	653	608	415	232	27	0	3026
Ferron...........	0	0	19	151	318	474	652	581	391	223	21	0	2830
Hanksville.......	0	10	140	291	476	605	720	687	515	315	63	0	3822
Moab 4 NW........	0	26	177	327	522	657	767	736	564	363	107	0	4246
Price............	0	0	42	201	395	518	654	616	433	250	30	0	3139
#Division.......	0	10	99	242	424	572	697	659	482	284	55	0	3524
STATE AVERAGE......	0	5	59	186	358	502	625	595	433	245	39	1	3048

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825.

Accumulated Growing Degree Days Base 40, by Months, Utah, 1988.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta............	7	24	204	397	501	736	849	790	570	561	184	16	4839
Milford..........	7	52	208	368	466	700	831	786	563	526	184	39	4730
Modena...........	33	117	253	364	507	680	811	754	573	540	175	62	4869
Snowville........	0	59	144	332	431	682	877	739	498	468	97	1	4328
Wendover.........	1	71	209	411	603	909	1050	940	683	574	138	8	5597
#Division.......	0	82	216	371	476	720	859	785	566	538	175	17	4805
DIXIE													
St. George.......	195	333	462	593	754	928	1061	979	790	746	395	209	7445
Zion Nat'l Park..	175	318	412	517	697	905	1055	971	790	825	386	217	7268
#Division.......	183	323	431	530	702	887	1031	950	769	759	386	212	7163
NORTH CENTRAL													
Corinne..........	0	58	229	398	559	786	873	792	560	534	97	4	4890
Elberta..........	11	47	210	428	539	767	909	823	632	560	197	5	5128
Farmington USU...	14	89	218	465	560	860	946	859	648	605	164	16	5444
Logan USU........	3	22	119	359	521	781	923	849	572	559	112	2	4822
Ogden Pioneer....	9	86	175	414	584	860	990	921	656	646	138	10	5489
SLC Airport......	5	86	190	414	569	873	974	914	634	605	170	14	5448
Tooele...........	22	87	191	410	567	864	1003	932	657	616	171	14	5534
Trenton..........	3	43	160	390	475	684	751	693	515	511	85	3	4313
#Division.......	9	54	180	403	532	797	907	838	604	568	138	5	5035
SOUTH CENTRAL													
Cedar City FAA...	42	114	201	340	491	700	867	832	600	573	199	68	5027
Fillmore.........	20	66	222	427	563	760	904	842	638	608	209	18	5277
Kanab PH.........	97	236	325	409	580	787	906	871	673	637	290	156	5967
Levan............	27	59	159	387	457	732	841	771	586	558	184	20	4781
Loa..............	28	101	188	272	410	638	723	692	487	451	152	69	4211
Manti............	16	33	153	340	458	743	829	781	543	496	153	21	4566
Nephi............	33	108	224	435	543	762	881	816	606	582	209	33	5232
Panguitch........	32	111	201	300	430	621	679	663	514	491	175	90	4307
Richfield........	19	77	188	365	456	697	779	745	534	508	182	44	4594
#Division.......	16	93	193	340	460	700	811	763	562	527	187	56	4708
NORTHERN MOUNTAINS													
Heber............	16	39	148	343	440	637	719	674	494	491	129	0	4130
Manila...........	17	82	130	336	481	741	825	777	556	497	M	M	4442M
Morgan...........	18	67	159	389	491	670	737	661	517	523	132	8	4372
Olmstead PH......	36	95	229	426	557	804	920	859	599	600	183	16	5324
Scofield.........	7	15	42	140	254	525	678	604	370	302	45	9	2991
Silver Lk Brighton	7	17	21	118	235	502	654	556	322	268	26	12	2738
Woodruff.........	5	2	61	309	401	600	660	604	450	430	65	7	3594
#Division.......	14	37	109	290	414	655	754	695	470	450	103	8	4989
UINTA BASIN													
Duchesne.........	1	13	124	377	489	726	807	759	524	507	135	24	4486
Ft. Duchesne.....	0	3	144	373	518	730	825	763	532	507	138	19	4552
Jensen...........	0	9	185	409	534	719	787	725	537	527	153	33	4618
#Division.......	0	11	160	392	510	725	817	760	533	514	147	23	4592
SOUTHEAST													
Blanding.........	12	102	204	373	550	774	859	864	608	544	181	85	5156
Ferron...........	4	50	158	328	521	769	876	827	577	530	158	61	4859
Hanksville.......	11	148	291	507	585	794	851	836	627	573	290	108	5621
Moab 4 NW........	8	103	349	543	673	877	941	943	694	617	312	137	6197
Price Warehouse..	0	25	106	290	477	778	872	817	588	518	111	32	4614
#Division.......	1	85	234	421	595	814	895	870	638	564	225	79	5421
STATE AVERAGE......	9	76	199	373	504	739	847	795	574	535	180	42	4873

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825.

UTAH AGRICULTURAL STATISTICS 1989

Normal Growing Degree Days Base 40, by Months, Utah.

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
WESTERN													
Delta............	1	76	217	350	549	709	834	798	623	417	167	19	4760
Milford..........	4	76	208	343	530	661	791	771	600	411	173	33	4601
Modena...........	52	115	238	364	529	628	751	735	590	443	213	84	4742
Snowville........	0	14	124	285	462	590	698	673	540	365	117	2	3870
Wendover.........	0	50	189	347	660	837	973	931	724	371	107	1	5190
#Division.......	18	79	207	340	534	667	792	765	601	403	167	36	4609
DIXIE													
St. George.......	220	290	432	598	770	864	985	961	794	632	376	241	7163
Zion Nat'l Park..	183	240	364	540	764	871	995	977	842	680	341	210	7007
#Division.......	200	262	392	549	742	840	963	944	796	631	353	223	6895
NORTH CENTRAL													
Corinne..........	0	29	173	330	540	700	812	778	616	387	131	4	4500
Elberta..........	0	63	212	352	559	703	830	804	636	400	163	15	4737
Farmington USU...	1	70	203	339	584	732	850	821	653	404	161	16	4834
Logan USU........	0	4	106	261	502	710	841	820	624	335	86	0	4289
Ogden Pioneer....	0	50	177	322	601	773	897	863	687	400	147	11	4928
SLC Airport......	0	54	189	330	598	758	887	859	684	405	151	10	4925
Tooele...........	0	46	162	296	565	780	914	883	681	361	126	9	4823
Trenton..........	0	2	106	273	465	616	710	680	551	378	118	0	3899
#Division.......	1	40	166	313	545	712	832	804	631	384	133	9	4570
SOUTH CENTRAL													
Cedar City FAA...	41	94	204	328	531	698	827	806	641	412	192	69	4843
Fillmore.........	21	93	222	347	566	722	852	828	668	425	182	42	4968
Kanab PH.........	131	187	301	419	615	723	841	826	697	518	287	164	5709
Levan............	0	60	194	329	522	673	795	769	610	410	170	19	4551
Loa..............	1	45	141	264	428	551	662	635	486	342	138	22	3715
Manti............	0	39	175	307	485	654	766	742	576	373	141	10	4268
Nephi............	13	72	195	330	552	710	833	806	647	431	190	47	4826
Panguitch........	14	58	170	305	458	542	641	619	529	394	172	39	3941
Richfield........	38	100	232	354	516	619	732	708	566	431	203	68	4567
#Division.......	27	74	188	316	502	641	760	736	586	403	177	51	4461
NORTHERN MOUNTAINS													
Heber............	0	12	126	274	451	567	673	649	529	372	125	4	3782
Manila...........	0	7	99	241	428	633	755	728	523	318	96	1	3829
Morgan...........	0	20	143	295	479	593	692	664	540	380	124	4	3934
Olmstead PH......	4	51	186	309	536	723	854	832	663	412	150	9	4729
Silver Lk Brighton	0	0		69	221	361	518	477	328	169	11	0	2154
Woodruff.........	0	0	29	190	369	487	615	583	459	286	46	0	3064
#Division.......		12	90	230	412	556	675	647	502	322	91	3	3540
UINTA BASIN													
Duchesne.........	0	11	155	325	522	659	764	735	557	355	100	0	4183
Ft. Duchesne.....	0	5	157	337	525	636	736	701	551	369	98	0	4115
Jensen...........	0	10	177	358	545	640	739	694	557	392	117	0	4229
#Division.......	0	9	167	343	534	653	755	720	562	370	103	0	4216
SOUTHEAST													
Blanding.........	0	64	191	330	545	706	823	795	637	389	159	21	4660
Ferron...........	0	26	156	301	515	718	830	790	611	377	140	6	4470
Hanksville.......	11	121	294	442	667	770	890	857	679	473	209	45	5458
Moab 4 NW........	43	153	332	512	736	821	937	906	736	535	257	83	6051
Price Warehouse..	0	47	191	350	579	708	824	792	636	405	161	16	4709
#Division.......	15	94	248	399	622	752	871	839	671	452	192	38	5193
STATE AVERAGE......	17	68	196	337	538	673	793	765	605	405	162	34	4593

Source: Utah State Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825.

Frost Free Period, Utah, 1988 and Normal (1931-60).

Station	1988			Normal		
	Last Spring Minimum of 32° or Below	First Fall Minimum of 32° or Below	Number of Days Between Dates	Last Spring Minimum of 32° or Below	First Fall Minimum of 32° or Below	Number of Days Between Dates
WESTERN						
Delta............	5-8	9-18	133	5-11	9-30	142
Milford..........	5-31	9-19	111	5-18	9-26	131
Modena...........	5-31	9-13	105	5-21	9-28	130
Snowville........	5-30	9-18	111	6-5	9-6	93
Wendover.........	4-26	11-7	195	4-21	10-23	186
DIXIE						
St. George.......	3-29	11-16	232	4-1	11-10	223
Zion Nat'l Park..	5-2	11-15	197	4-6	11-7	215
NORTH CENTRAL						
Corinne..........	5-9	9-19	133	5-14	9-28	138
Elberta..........	5-20	9-19	122	5-14	9-30	140
Farmington USU...	5-3	11-8	189	5-4	10-12	161
Logan USU........	5-2	11-7	189	5-8	10-13	159
Ogden Pioneer PH.	5-2	M	M	5-1	10-14	167
SLC Airport......	5-2	11-14	196	5-3	10-11	161
Tooele...........	5-6	11-7	185	4-28	10-24	179
Trenton..........	5-20	9-19	122	5-31	9-12	104
Utah Lake Lehi...	5-11	10-20	162	5-18	9-28	134
SOUTH CENTRAL						
Cedar City FAA...	5-31	9-13	105	5-17	9-30	136
Fillmore.........	5-30	9-19	112	5-4	10-11	160
Kanab PH.........	5-8	11-12	188	5-6	10-13	160
Levan............	5-30	9-12	105	5-16	10-3	140
Loa..............	5-31	9-15	107	6-22	8-29	68
Manti............	5-7	9-19	135	5-24	9-28	128
Nephi............	5-8	9-19	134	5-11	10-2	145
Panguitch........	6-11	9-12	93	6-19	9-3	76
Richfield KSVC...	5-31	9-19	111	5-28	9-18	113
NORTHERN MOUNTAINS						
Coalville........	5-21	9-12	114	6-16	8-29	74
Heber............	5-21	9-15	117	6-11	9-3	84
Manila...........	5-31	9-19	111	6-8	9-8	92
Morgan...........	5-21	9-12	114	6-5	9-8	96
Olmstead PH......	5-7	11-12	189	5-23	9-30	130
Scofield.........	6-14	9-12	90	6-29	8-25	57
Silver Lk Brighton	6-14	9-11	89	7-5	8-27	53
Woodruff.........	6-12	8-17	66	6-27	8-23	57
UINTA BASIN						
Duchesne.........	5-7	9-19	135	5-28	9-20	115
Fort Duchesne....	5-7	9-19	135	5-26	9-16	114
Jensen...........	5-9	9-19	133	5-24	9-14	113
SOUTHEAST						
Blanding.........	5-7	11-6	183	5-15	10-6	144
Ferron...........	5-31	9-19	111	5-15	10-6	144
Hanksville.......	5-8	9-19	134	4-22	10-20	182
Moab 4 NW........	4-11	11-5	208	4-21	10-21	183
Price Warehouse..	5-31	11-4	157	5-12	10-5	147

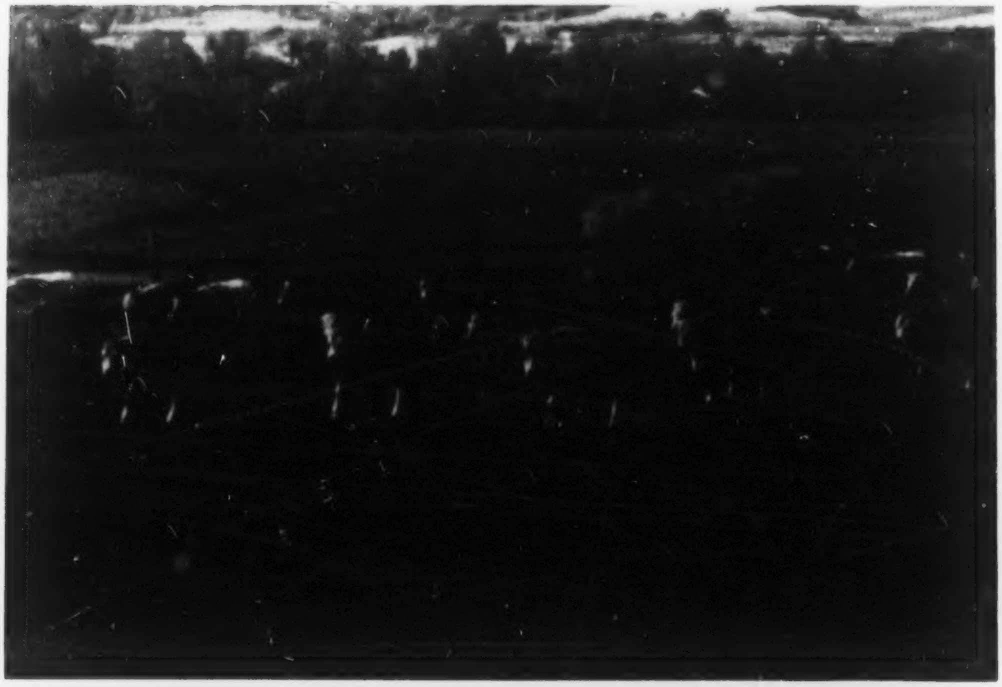
Source: Utah State Department of Agriculture Climatologist, Department of Soil Science and Biomet, Utah State University, Logan, Utah 84322-4825.
M-Missing data.

ENTERPRISE BUDGETS

Prepared by the Economics Department, Utah State University

The following crop and livestock enterprise budgets were prepared by the Economics Department at Utah State University. These budgets are provided to help farmers and ranchers identify potential alternatives to maximize the profitability of their operation. Actual costs and income will vary from farm to farm; therefore, a column has been provided to adapt the budgets to your farm or ranch.

Any questions or suggestions to these budgets should be referred to the appropriate contact person in the Economics Department at Utah State University (phone (801) 750-2290 in Logan).



ALFALFA HAY BUDGET
ESTIMATED COSTS AND RETURNS FOR ALFALFA HAY PRODUCTION (1988)
MILLARD COUNTY WHEEL LINE PUMP SPRINKLER IRRIGATION
PER ACRE BASIS

Item	Unit	Quantity	Price	Total	Your Farm
			- - - Dollars - - -		
RECEIPTS:					
Yield per Acre	Ton	5.00	80.00	400.00	
Residue	AUM	0.25	8.25	2.06	
Total Receipts				402.06	
PURCHASES:					
Phosphate	Lb.	20.00	0.23	4.60	
Carbofuran	Gal.	.25	52.95	13.24	
Water	Yr.	1.00	20.00	20.00	
Total Purchases				37.84	

		Machine Costs				
	Times	Fixed	Var.	Labor	Total	Your Farm
OPERATIONS:						
Fertilizer Applic.	1	Custom	-------------		3.00	
Insec. Applic	1	2.92	0.39	0.25	3.56	
Irrigation	6	19.31	8.40	1.80	80.51	
Swathing	3	16.91	3.23	0.88	29.24	
Baling	3	12.01	4.08	1.00	27.25	
Hauling (SP wagon)	3	15.48	2.14	0.56	23.58	
Operating Interest	@ 13.00% for 6 months				12.45	
Total Operating Cost..........................					179.59	
FIXED COSTS:						
Establishment Costs	7 Yrs.	$218.63	12.00%		47.90	
TOTAL OPERATING COSTS PLUS PURCHASES & ESTABLISHMENT..					265.33	
RETURN TO LAND AND MANAGEMENT.........................					136.73	

Budget prepared by Doug Eck and DeeVon Bailey.

BARLEY BUDGET
ESTIMATED COSTS AND RETURNS FOR BARLEY PRODUCTION (1988)
CACHE COUNTY, WHEEL LINE GRAVITY FLOW SPRINKLER IRRIGATION
PER ACRE BASIS

Item	Unit	Quantity	Price	Total	Your Farm
			- - - Dollars - - -		
RECEIPTS:					
Yield per Acre	Cwt.	38.4	5.75	220.80	
Total Receipts 1/:	-------------------------			220.80	
PURCHASES:					
Seed	Lb.	90	.10	9.00	
Nitrogen	Lb.	80	.24	19.20	
2-4-D	Lb.	.5	3.90	1.95	
Diclofop	Lb.	.75	6.78	5.09	
Water	Share	.5	13.00	6.50	
Total Purchases:	-------------------------			41.74	

			MACHINE COSTS			
OPERATIONS:	Times	Fixed	Variable	Labor	Total	
Fertilizer Appl.	1	Custom	--------------		3.00	
Herbicide Appl.	2	2.92	.39	.25	4.20	
Plowing	1	12.73	5.18	2.88	20.79	
Disking	1	6.28	1.24	.77	8.29	
Harrowing	1	2.46	.99	.77	4.22	
Planting	1	8.48	2.49	1.23	12.20	
Combining	1	Custom	--------------		22.50	
Hauling	1	Custom @ .18/cwt.			6.91	
Irrigation	2	18.83	.45	.90	21.53	
Storage for 6 months	1	.03/cwt./month			6.91	
Operating Interest @ 13% for 6 months ---------------					6.54	
Total Operating Costs ---------------------					117.09	
Total Purchases Plus Operating Costs ----------------					158.83	
Return to Land and Management ----------------------					61.97	

1/ By-products, such as straw or grazing, would also add to total receipts. However, additional costs would also be incurred. The reader should calculate the receipts and expenses for these by-products for his or her farm.

Budget prepared by Doug Eck, Don Huber, and DeeVon Bailey.

WINTER WHEAT BUDGET
ESTIMATED COSTS AND RETURNS FOR WINTER WHEAT PRODUCTION (1988)
BOX ELDER COUNTY, NOT IRRIGATED, 50 PERCENT SUMMER FALLOW ROTATION
(NO PARTICIPATION IN GOVERNMENT PROGRAM)
PER ACRE BASIS

Item	Unit	Quantity	Price	Total	Your Farm
			- - - Dollars - - -		
RECEIPTS:					
Yield per Acre........	Bu.	30	3.41	102.30	
Total Receipts 1/				102.30	
PURCHASES:					
Seed..................	Lb.	60	.12	7.20	
Nitrogen..............	Lb.	40	.24	9.60	
Chlorsulfuron.........	Oz.	.17	26.40	4.49	
Total Purchases				21.29	

MACHINE COSTS

OPERATIONS:	Times	Fixed	Var.	Labor	Total	
Fertilizer Applic. ...	1	Custom...............			3.00	
Herbicide Applic.	1	Custom Airplane......			2.75	
Disking...............	1	4.49	3.55	.51	8.55	
Chisel Plowing........	1	3.24	2.57	.45	6.26	
Rod Weeding 2/........	2	4.26	1.48	.23	7.68	
Planting..............	1	4.93	3.41	.41	8.75	
Combining.............	1	13.33	4.14	.83	18.30	
Hauling...............	1	Custom .22/cwt.			3.96	
Storage for 6 months..	1	.03/cwt./month.......			3.24	
Operating Interest. @12% for 6 months					3.48	
Total Operating Costs					65.97	
Total Purchase Plus Operating Costs					87.26	
Return to Land and Management					15.04	

1/ By-products such as straw or grazing would also add to total receipts. However, additional costs would also be incurred. The reader should calculate the receipts and expenses for these by-products for his or her farm. 2/ On summer fallow acreage.

Budget prepared by Doug Eck and DeeVon Bailey.

WINTER WHEAT BUDGET
ESTIMATED COSTS AND RETURNS FOR WINTER WHEAT PRODUCTION (1988)
BOX ELDER COUNTY, NOT IRRIGATED, 50 PERCENT SUMMER FALLOW ROTATION
(WITH PARTICIPATION IN GOVERNMENT WHEAT PROGRAM)
PER ACRE BASIS (72.5% SEEDED 27.5% SET ASIDE)

Item	Unit	Quantity	Price	Total	Your Farm
			- - - Dollars - - -		
RECEIPTS:					
Yield per Acre 1/.....	Bu.	30x.78=23.40	3.41	79.79	
Government Payments...	Bu.	23.40	.69	16.15	
Total Receipts 2/				95.94	
PURCHASES 3/:					
Seed..................	Lb.	43.50	.12	5.22	
Nitrogen..............	Lb.	29.00	.24	6.96	
Chlorsulfuron.........	Oz.	.12	26.40	3.17	
Total Purchases				15.35	

		MACHINE COSTS				
OPERATIONS 4/:	Times	Fixed	Var.	Labor	Total	Your Farm
Fertilizer Applic. ...	1	Custom..............			2.18	
Herbicide Applic......	1	Custom Airplane......			1.99	
Disking...............	1	4.49	2.57	.37	7.43	
Chisel Plowing........	1	3.24	1.86	.33	5.43	
Rod Weeding 5/........	2	4.26	1.07	.17	6.74	
Planting..............	1	4.93	2.47	.30	7.70	
Combining.............	1	13.33	3.00	.60	16.93	
Hauling...............	1	Custom .22/cwt.			3.09	
Storage for 6 months..	1	.03/cwt./month.......			2.53	
Weed Ctrl on Set Aside	2	4.26	1.07	.17	6.74	
Operating Interest @ 13% for 6 months					2.70	
Total Operating Costs					63.46	
Total Purchases Plus Operating Costs					78.81	
Return to Land and Management					17.13	

1/ Assumes 22% actual reduction in production for a farm with a 27.5% set aside. See budget for farm not participating in the government winter wheat program. 2/ By-products such as straw or grazing would also add to total receipts. However, additional costs would also be incurred. The reader should calculate the receipts and expenses for these by-products for his or her farm. 3/ Purchases are reduced by 27.5% to reflect 27.5% in set aside. 4/ Variable and labor costs are reduced 27.5% to reflect 27.5% fewer acres planted. Fixed costs are unchanged. 5/ On summer fallow acreage.

Budget prepared by Doug Eck and DeeVon Bailey.

CORN GRAIN BUDGET
ESTIMATED COSTS AND RECEIPTS FOR CORN GRAIN PRODUCTION (1988)
BOX ELDER COUNTY FURROW IRRIGATION SYSTEM
PER ACRE BASIS

Item	Unit	Quantity	Price	Total	Your Farm
			- - - Dollars - - -		
RECEIPTS:					
Yield per Acre	Bu.	160	3.30	528.00	
Total Receipts	-----------	-----------	-----------	528.00	
PURCHASES:					
*Nitrogen	Unit	250	.24	60.00	
*Prosphate	Unit	75	.32	24.00	
Alachlor	Qt.	2	6.00	12.00	
**Atrazine	Gal.	.33	10.50	3.50	
2-4-D	Lb.	.33	3.90	1.29	
***Phorate	Lb.	6.75	1.48	10.00	
**Disulfoton	Aerial Application			3.00	
Seed	Lb.	15.5	1.50	23.25	
Water	Share	.5	13.00	6.50	
**Soil Test				.07	
Total Purchases	-----------	-----------	-----------	143.61	

MACHINE COSTS

OPERATIONS:	Times	Fixed	Variable	Labor	Total	Your Farm
Plowing	1	15.81	7.34	2.16	25.31	
Disking	2	16.64	2.67	.77	23.52	
Triple-K	1	4.61	1.30	.45	6.36	
Land Plane	1	8.24	2.77	.96	11.97	
Planting	1	Custom	-----------	-----------	10.00	
Fertilizer App.	1	Custom	-----------	-----------	3.00	
Herbicide Appl.	2	3.60	.89	.50	6.38	
Rotary Hoeing	1	8.17	2.87	.90	11.94	
Cultivating	2	12.96	2.91	1.11	21.00	
Irrigation	6	1.32	.25	1.65	12.72	
Combining	1	Custom	-----------	-----------	23.00	
Hauling	1	Custom	-----------	-----------	5.00	
Drying	1	Custom	-----------	-----------	24.00	
Operating Interest	@ 13% for 6 months			-----------	16.67	
Total Operating Costs	-----------	-----------	-----------	-----------	200.87	
Total Purchases Plus Operating Costs			-----------	-----------	344.48	
Return to Land and Management	-----------	-----------	-----------	-----------	183.52	

* Liquid fertilizer.

** Purchases made every third year, 1/3 of cost is included each year.

*** Pesticide applied while drilling.

Budget prepared by Doug Eck, Thomas Reeve, and DeeVon Bailey in cooperation with a producer panel.

TART CHERRY BUDGET
ESTIMATED COSTS AND RECEIPTS FROM TART CHERRY PRODUCTION (1988)
UTAH COUNTY, TRICKLE IRRIGATION SYSTEM, 130 TREES PER ACRE
PER ACRE BASIS

Item	Unit	Quantity	Price	Total	Your Farm
			- - - Dollars - - -		
RECEIPTS:					
Yield per Acre	Lb.	14,000	.15	2,100.00	
Total Receipts				2,100.00	
PURCHASES:					
Fertilizer					
Nitrogen	Lb.	260	.24	62.40	
Herbicide					
Glythosate	Qt.	1	15.39	15.39	
Dacamine	Qt.	1.67	3.79	6.33	
Terbacil	Qt.	.83	19.53	16.21	
Diuron	Lb.	.83	3.80	3.15	
Insecticide					
Dormant Oil	Gal.	4	2.50	10.00	
Parathion	Qt.	1.50	6.75	10.13	
Zinc 50	Lb.	7	1.02	7.14	
Sulfur	Lb.	60	.26	15.60	
Mouse Bait	Lb.	5	1.10	5.50	
Replacement Trees	No.	1.3	5.00	6.50	
Water	Share	2.5	6.00	15.00	
Total Purchases				173.35	

MACHINE COSTS

OPERATIONS:	Times	Fixed	Variable	Labor	Total	Your Farm
Fertilizer Appl.	1	4.59	1.80	1.60	7.99	
Herbicide Appl.	2.2	10.82	2.23	2.00	20.13	
Insecticide Appl	4	15.35	4.45	1.67	39.83	
Bee Rental	1 hive per acre				10.00	
Frost Control	30 hrs/yr	140.70	53.30	3.75	197.75	
Irrigation	16 acres/day for 120 days	121.56	79.48	26.00	227.04	
Harvesting	1	226.67	133.67	52.25	412.59	
Brush Removal	4	30.35	2.73	2.00	49.27	
Pruning/Trimming	1	.78	8.00	54.17	62.95	
Rodent Control	1	8.99	4.00	3.75	16.74	
Operating Interest @ 13% for 6 months					42.76	
Total Operating Costs					1,087.05	
Establishment Cost* $5866/acre over 20 yrs @ 12.00%					785.00	
Total Operating Cost Plus Purchases and Establishment					2,045.40	
Return to Land and Management					54.60	

*Based on estimates of establishment cost in Michigan by Michael Kelsey and adjusted for land costs in Southern Utah County.

Budget prepared by DeeVon Bailey, Dean Miner, and Doug Eck in cooperation with a producer panel.

DAIRY BUDGET
ESTIMATED COSTS AND RETURNS PER COW (1988) FOR THREE HERD SIZES

	Small (50 Cows) 15,000 Pounds	Medium (90 Cows) 17,000 Pounds	Large (180 Cows) 19,000 Pounds	Your Farm
	Dollars			
RECEIPTS:				
Milk Sales 1/........	1,732	1,964	2,195	
Cull Cow 2/..........	203	203	203	
Bull Calf 3/.........	42	42	42	
Heifer Calf 4/.......	50	55	60	
Total Receipts.........	2,027	2,264	2,500	
COSTS:				
Variable Costs:				
Feed 5/............	870	914	952	
Vet & Medicine 5/..	27	26	33	
Supplies & Breeding	106	134	128	
Hauling, etc. 5/...	57	65	72	
Labor..............	250	250	250	
Total Variable Costs.	1,310	1,389	1,435	
Fixed Costs:				
Cow Investment 6/..	105	114	122	
Cow Replacement 7/.	288	313	338	
Facilities 8/......	253	150	180	
Equipment..........	121	66	80	
Total Fixed Costs....	767	643	720	
TOTAL COSTS............	2,077	2,032	2,155	
RETURNS PER HEAD TO:				
Capital Assets & Management	-50	232	345	

1/ At $11.55 per hundredweight (cwt.). 2/ Assuming 33% turnover with 3% death loss and 30% sold as 1,350 pound cull cows at 45 cents per pound. 3/ At 0.40 head per cow per year. 4/ At 0.40 head per year. Value increases as herd productivity increases. 5/ Average production costs taken from actual records in Cache County. 6/ At 12% interest. 7/ At 1/3 of value. 8/ Taken from producer survey conducted by Department of Economics, Utah State University.

Budget prepared by Doug Eck, Clark Israelsen, and DeeVon Bailey.

COW/CALF OPERATION BUDGET
ESTIMATED COSTS AND RETURNS BASED ON A 200 COW COW/CALF OPERATION LOCATED IN SOUTHERN CENTRAL UTAH (1988)

	Number	Weight	Price	Unit	Total Value	Amount per Cow	Your Value
					----- Dollars	-----	
RECEIPTS:							
Calves							
Steers.............	80	420	92.00	Cwt.	30,912	154.56	
Heifers............	60	385	87.00	Cwt.	20,097	100.49	
Culled Animals							
Bulls..............	2	1,400	55.00	Cwt.	1,540	7.70	
Cows...............	20	925	45.00	Cwt.	8,325	41.63	
Total Receipts					60,874	304.38	
CASH COSTS:							
Federal Grazing Fees	1,449		1.86	AUM	2,695	13.48	
Hay	414		80.00	Tons	33,120	165.60	
Aftermath............	207		8.25	AUM	1,708	8.54	
Replacement Bulls....	2		1,400.00	Head	2,800	14.00	
Vet/Medicine.........					879	4.40	
Trucking.............					4,000	20.00	
Marketing............					925	4.63	
Repairs..............					1,900	9.50	
Property Tax.........					2,134	10.67	
Insurance............					534	2.67	
Interest.............					1,020	5.10	
Miscellaneous........					1,200	6.00	
Total Cash Costs.......					52,915	264.59	
NONCASH COSTS:							
Depreciation.........					7,334	36.67	
RETURN TO LAND AND MANAGEMENT					624	3.12	

Assumptions:

Livestock investment includes 200 mother cows and seven bulls. Cows are raised and have a 10 percent cull rate. Bulls are purchased and have a 28 percent cull rate. A weaned calf crop of 80 percent is assumed. Replacement cows are selected from the calf crop.

Management practices consist of calving out in March, and selling in November. The cows and bulls are fed high protein alfalfa January-April, turned onto the range May-November, and graze the aftermath in December. Labor is provided by the operator and family.

Interest expense is based on an operating loan to cover 50% of applicable cash costs for 6 months @ 13% per annum.

Budget prepared by Doug Eck, Grant Esplin, and DeeVon Bailey in cooperation with a producer panel.

STOCKER FEEDER OPERATING BUDGET

ESTIMATED COSTS AND RETURNS
BASED ON A 100 HEAD OPERATION

Item	Number	Weight	Price	Unit	Total Value	Amount per Steer	Your Operation
					- - - - Dollars - - - -		
RECEIPTS:							
Steers............	100	683	82.00	Cwt.	56,006	560.06	______
Total Receipts	----------------------------				56,006		______
CASH COSTS:							
Calf Purchase.....							
Steers..........	100	420	92.00	Cwt.	38,640	386.40	______
*Feed							
Corn Silage.....	187.0		25.00	Ton	4,675	46.75	______
Alfalfa Hay.....	22.5		80.00	Ton	1,800	18.00	______
Barley..........	30.0		115.00	Ton	3,450	34.50	______
**Interest @ 13%....					2,328	23.28	______
Vet & Medicine....					500	5.00	______
Death Loss @ 1.5%.					580	5.80	______
Marketing.........					1,120	11.20	______
Yardage $.05/day..					750	7.50	______
Trucking..........					500	5.00	______
Miscellaneous....					500	5.00	______
Total Cash Costs	----------------------------				54,843	548.43	______
Return to Investment	----------------------------				1,163	11.63	______

*Gain 1.75 pounds per day for 150 days = 263 pounds.
**Interest on the steer and 1/2 cost of feed.

Contact Person: Dr. Norris J. Stenquist

HIGH RESIDUE CONSERVATION TILLAGE INCREASES SOIL MOISTURE AND PROFITS

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Erosion Control:
The 1985 Food Security Act (the current farm bill) requires high-residue (high surface-straw cover) tillage techniques for many USDA Conservation Plans that are *mandated by law* on HEL (highly erodible land). Landowners and operators *must* alter many of their traditional tillage practices to remain eligible for USDA programs, insurance, and disaster assistance. These techniques are so new and innovative that it was deemed advisable to include research on them in this publication.

The Soil Science & Biometeorology Department at Utah State University has been conducting tillage research and demonstration plots on several watersheds throughout the State of Utah since 1982. Generous support from the Utah State Department of Agriculture, the Utah Energy Office, the Utah Association of Conservation Districts, the USDA-Soil Conservation Service, and other groups have helped to make this an ongoing, cooperative effort. Without the support of these auxiliary groups, research and educational efforts with conservation tillage and low-input agriculture would be minimal, at best, in Utah. However, cooperative efforts, such as this, add new dimensions to agricultural production in the State. Several new, beneficial cropping systems have been developed from this research, including optimal fertilizer placement techniques, no-till drill development and comparisons, and moisture-saving chemical fallow techniques.

Two 1988 studies at different sites with different soils (one highly-eroded HEL soil and one moderately-eroded HEL soil) in the Clarkston Watershed have been summarized. The studies focused upon different ways of meeting the tillage requirements of the "Conservation Compliance" provisions of the 1985 Food Security Act. It is often difficult for growers to drastically change their established tillage patterns in order to meet the stringent requirements of farming HEL soils according to the FSA of 1985 regulations. We set out several fallow-year tillage patterns in which we computed and measured erosion and compared estimated tillage costs for each practice.

Conclusion: The chemical-fallow (no-till) treatments are better both in conserving soil and increasing profits. However, the cost of applying chemicals was low in 1988, due to the drought that limited weed growth and necessitated only one chemical treatment. The USU-recommended practice of combining tillage and chemical treatments and the chisel-only system were both within reasonable limits of cost--but they both accelerated erosion. On steep, highly erodible soils, such as these, the chemical fallow treatment is probably the method of choice. However, on slopes that are less than these, chisel plow methods can be used ~~and~~ still meet the FSA-85 requirements. Traditional disk and inversion plow methods are much more costly to the grower and can seldom meet the FSA-85 requirements. In addition, the measured dryland moisture savings under chemical fallow (1-2 inches per year) offer an additional incentive for growers to change their traditional methods.

Table 1 gives the tillage costs and calculated erosion values for each of the two sites. The calculations were identical to those used by the USDA-SCS to calculate conservation compliance for FSA-85 certification.

Table #1. Tillage Comparison vs. Soil Loss, Dryland Winter Wheat.

	Treatments 1/				
	1	2	3	4	5
	$/Acre				
FALLOW OPERATIONS:	10.95	-	-	-	-
Moldboard	10.95	-	-	-	-
Disk	32.85	23.40	-	-	-
Chisel	-	-	16.80	4.20	-
Harrow	5.70	5.70	5.70	-	-
Spraying	-	-	-	18.25	18.25
Fertilizing	30.52	30.52	30.52	30.52	30.52
Seeding	4.95	4.95	4.95	4.95	4.95
Total to Establish Crop	84.97	64.57	57.97	57.92	53.72
	Ton/Acre				
SOIL LOSS:					
Moderately Eroded Soil 1/					
Universal Soil Loss Equation	5.71	3.98	3.29	2.94	1.21
Wind Erosion Equation	11.90	11.90	11.90	4.20	-
Estimated Soil Loss	17.61	15.88	15.19	7.14	1.21
Highly Eroded Soil 2/					
Universal Soil Loss Equation	22.72	15.84	13.08	8.95	4.82
Wind Erosion Equation	7.10	6.50	5.30	2.00	-
Estimated Soil Loss	29.82	22.34	18.38	10.95	4.82

1/ Treatment Codes:
- 1 Conventional Tillage System - Moldboard Plow/Disk
- 2 Conventional Tillage System - Disk
- 3 Conventional Tillage System - Chisel/Sweep
- 4 Conservation Tillage System - Chisel/Chemical Fallow
- 5 Conservation Tillage System - Chemical Fallow

2/ Site #1 (Ravsten Farm) -- Moderately eroded soil. (Soil: Mendon-Collinston Complex, 6 to 30% slopes, Class #VIe-U).
3/ Site #2 (Thompson Farm) -- Highly-eroded soil. (Soil: Wheelon-Collinston Complex, 10 to 30% slopes, Class #VIe-U1).

Moisture Conservation:
Moisture conservation studies have also been conducted at the Bluecreek and Nephi Experimental Farms, and at several "on-farm" Extension demonstrations across the State. These studies have shown that soil moisture (as much as 1 to 2 inches per year) can be saved with high-residue (surface mulch) conservation tillage systems.

Table #2 gives the most recent yield data from the experimental farm plots and one other (Bluecreek Field #2) located on a commercial farm near the Bluecreek Experimental Station. Note that the yields from the chemical fallow treatments generally exceed other yields. This is simply due to the moisture-saving nature of our newer chemical fallow methods.

Table #2. Yields for Dryland Winter Wheat Tillage Studies
at Bluecreek and Nephi, Utah Experimental Sites.

Treatments	1987	1986	1985
		-Bu./Acre-	
NEPHI EXPERIMENTAL FARM			
Cont. Spring No-Till (T)...........	13.5	24.4	3.0
Cont. Fall No-Till (T).............	12.6	27.2	3.5
Chemical Fallow Fall No-Till (T)...	--	33.3	--
Fall Ripped Chem-Fallow No-Till (T)	--	32.9	--
Conventional Fallow (DD)...........		31.3	
Precipitation (inches).............	9.3	18.9	13.5
BLUECREEK EXPERIMENTAL FARM			
Cont. Spring No-Till (Y)...........	15.8	24.1	14.0
Cont. Spring No-Till (DF)..........	10.3	18.9	13.5
Cont. Fall No-Till (DF)............	7.8	42.7	21.0
Chemical Fallow Fall No-Till (T)...	--	60.9	--
Fall Ripped Chem-Fallow No-Till (Y)	--	50.5	--
Conventional Fallow (DF)...........	--	41.7	--
Precipitation (inches).............	13.4	19.6	13.8
BLUECREEK FIELD #2			
Cont. Spring No-Till (Y)...........	21.0	33.5	--
Cont. Spring No-Till (DF)..........	16.3	23.9	--
Cont. Fall No-Till (Y).............	15.8	59.0	--
Cont. Fall No-Till (DF)............	12.3	41.2	--
Chemical Fallow Fall No-Till	47.0	--	--
Chemical Fallow Fall No-Till (DF)..	45.6	--	--
Conventional Fallow Dammer Diker (Y)	41.5	--	--
Conventional Fallow Dammer Diker (DF)	45.3	--	--
Fall Ripped Chem-Fallow No-Till (Y)	41.8	--	--
Fall Ripped Chem-Fallow No-Till (DF)	44.0	--	--
Conventional Fallow (DF)...........	44.5	--	--
Precipitation (inches).............	13.4	19.6	13.4

(T) Tye No-till Drill	(DD) Double Disk Conventional Drill
(Y) Yielder No-Till Drill	(DF) Deep Furrow Conventional Drill

CHEMICAL FALLOW

Cost savings and increased sales can result from using chemical fallow practices. The following worksheet was prepared by a major chemical company. It helps you analyze the potential savings on your operation.

Note: Only use pesticides when needed and at the rates prescribed on the label. Just because your neighbor is spraying doesn't mean you should. When you spray, you potentially kill insect friends, as well as enemies. Save the cost if spraying isn't necessary. Applying at the recommended rate can also save money. If you have questions, contact your County Agent.

1. SAVE TILLAGE.

How many tillage trips do you make for weeds between harvest and planting? How much do tillage trips cost you each trip?

Sample Cost/Tillage Trip/Acre

Plow	Chisel	V-Blade	Disk	Field Cult.	Rod Weeder
$9.00	$5.00	$4.50	$5.00	$4.00	$2.50

Cost/Acre

Trip 1 $____________ A chemical fallow application
Trip 2 $____________ between harvest and planting
Trip 3 $____________ can replace an average of two
Trip 4 $____________ to three tillage trips.
Trip 5 $____________ How many can you save?________
Trip 6 $____________

How many dollars/acre can you save by reducing tillage trips with chemical fallow?

(answer 1) $ ☐ /ac.

2. SAVE MOISTURE.

University data* show that 1/3 to 1/2" of soil moisture can be lost with each tillage trip.

*1977 Farm Journal

Number of Tillage Trips Eliminated	Potential Moisture Savings	Potential Yield Increases: Fall Wheat	Potential Yield Increases: Spring Wheat
		- - -Bushels per Acre- - -	
1	.5"	2.0	3.5
2	1.0"	4.0	7.0
3	1.5"	6.0	10.0

Est. your potential yield increase. ____________bu/ac.
Times your current price/bu. ..... $____________/bu.

Equals potential increase/acre (answer 2) $ ☐ /ac.

3. SAVE TIME.

Saving time allows you to plant earlier and earlier. Planting may led to higher yields!

Sample PNW University Test Plots

Planting Date	Spring Barley	Spring Wheat	Fall Wheat
	Tons/Acre	- -Bushels/Acre- -	
April 1-11	2.08	18.0	
After April 26	1.80	11.5	
By Oct. 1			40.9
After Oct. 10			27.4

What is your value of optimum planting? .... ____________ bu/ac.

Times your current price/Bu. .....$____________ /bu.

Equals potential increase/acre. ...... (answer 3) $ ☐ /ac.

4. SAVE SOIL.

Another benefit of less tillage is reduced erosion. The chart below indicates soil loss due to wind and water.

Estimate Soil Loss in Tons/Acre/Year

	Wind	Water
Black Fallow.......	13.1	7.4
Stubble Mulch Fallow	3.5	4.6
Chemical Fallow	Trace	Trace

How much are you willing to pay per acre to reduce soil erosion? .... (answer 4) $ ☐ /ac.

5. HERBICIDE (for chemical fallow)

What does your herbicide cost per gallon? $____________
What is your rate/acre? ____________oz/ac.
Rate/acre ____________oz. times $____________ gal. divided by 128.

Equals herbicide cost/acre. .... $__________/ac.
What is your application cost/acre? .. $__________/ac.

Total herbicide cost/acre .... (answer 5) $ ☐ /ac.

6. CHEMICAL FALLOW PAYOUT.

Tillage Savings .... (answer 1) $__________/ac.
Moisture Savings .... (answer 2) $__________/ac.
Time Savings .... (answer 3) $__________/ac.
Soil Savings .... (answer 4) $__________/ac.
Total $__________/ac.

Minus herbicide cost/acre ..(answer 5) $__________/ac.

Equals Chemical Fallow Payout/Acre. ..$__________ /ac.

Multiply by the acres you could be using in this system, to equal the total chemical fallow payout.

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U.S. DEPARTMENT OF AGRICULTURE

The following reports published by this office will update any of the estimates in this publication before the 1990 edition:

Report	Release Date
1. **Utah Agriculture** (covers a wide range of farm topics, including crops, livestock, and prices. Also includes annual crop and livestock data).	Twice Monthly
2. **Weekly Crop-Weather** (covers crop conditions during the planting, growing and harvesting season. Also includes livestock comments and detailed weather information by reporting station).	Every Monday, April-October

Information for receiving the above reports can be obtained by writing this office, or you may telephone (801)524-5003.

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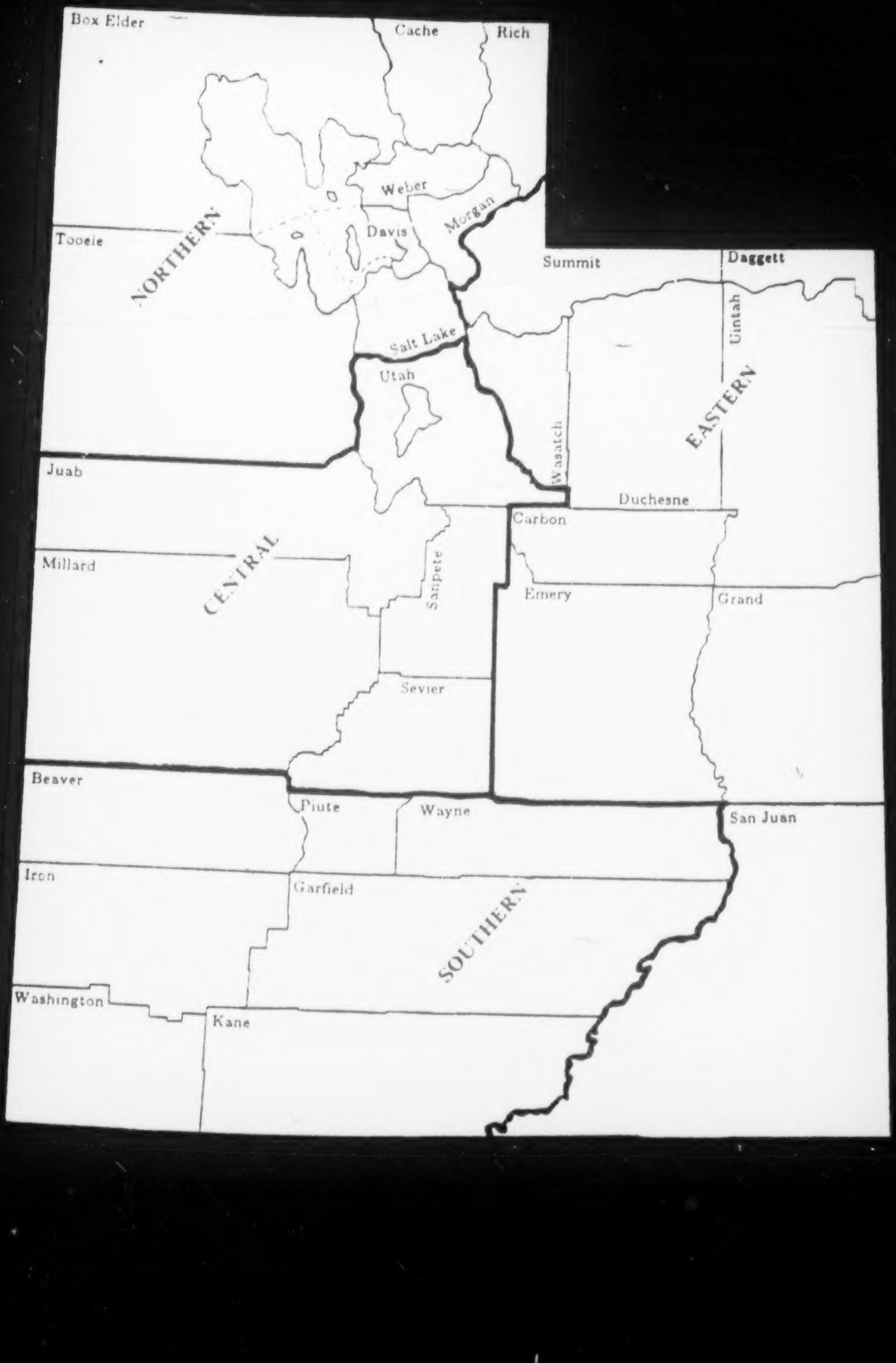
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